THE BUILDER

A Journal for the Architect & Constructor

OCTOBER 5, 1928 — No. 4470

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86TH YEAR

From the R.I.B.A. Exhibition.

The Staircase, Blickling Hall, Norfolk.

From a drawing by Mr. Maurice B. Adams, F.R.I.B.A. (retired).

THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXXV. No. 4470. OCTOBER 5, 1928.

CONCERNING COMPETITIONS

THE competition system as now existing under the careful guidance of the R.I.B.A. has passed successfully through a number of vicissitudes that have caused a trembling at the foundations; but if there existed any doubts whether it has come to stay, the results of recent competitions should surely have dispelled them from the minds of all those who do not on principle oppose the existing order, whatever it may be, simply because it exists. With one possible exception we have seen no serious adverse criticisms of the awards of any of the important competitions that have been held during the last year or two, and as these include a number of works of major importance, this is surely a highly satisfactory state of affairs, indicating as it does that there is not only a sound tradition springing up among competitors, but an equally sound tradition among assessors, whose task is often as difficult as that of the competitors.

Not only have important schemes been settled beyond question, but the buildings that are to arise as a result of the awards bid fair to maintain the highest traditions of civic building in this country. And this is, after all, the most important consideration of all, for it is only by fine results in actual building that the competition system can hope to live, and outside of this consideration the interests and good fortune of the individual is of quite minor importance. In the case of the Southampton competition, which we noted and illustrated in a recent issue, the winning design is of striking ability, solving a problem at once complex and difficult. Here was an open site with no rigid building line to impose a certain inevitable form, and the variety of outline presented among the schemes submitted must have imposed a particular difficulty of its own on the assessor. In the Peterborough competition last year the conditions were very different, in that the outline of the building was pre-ordained, while certain recommendations as to internal areas made a strong similarity between the schemes submitted inevitable. It is remarkable that the same man should have solved schemes so dissimilar in essence; and we congratulate Mr. Webber upon the skill that has brought success so quickly upon success. Whether his abilities would ever have found their due recognition but for the competition system is a point that cannot be proved or refuted, but it seems little short of a certainty that but for this much-abused system, a man of the highest ability would have remained in comparative obscurity.

Looking through a list of winners of open competitions since the war, there are a few names of architects that appear more than once, all of whom have either won more than one competition within that time, or been placed with a premium. And in the same list, it is significant to see that few old-established firms or practitioners appear. It suggests that there is a distinct mentality that best approaches the competition problem, as also that the solving of a building scheme in competition form is different in essence from solving a similar problem in the ordinary course of practice. The chief difference is naturally the need to work rigidly to a date, imposing a mental strain and concentration which is not within the power of every individual, and perhaps setting a premium upon the energy of comparative youth. In the practise of an art, inspiration does not always respond to a time-table, and the genius has often been content to await its arrival. But there is little doubt that given the effort of will, inspiration will come more quickly to the alert than to the dilettante, and it is inspired energy that is discovered under competition conditions. That it has become almost the perquisite of youth can hardly be regretted by any who look for the generation that is passing to be replaced by as worthy talent.

There is another consideration that is worthy of thought. Many have said that a system that puts work that would normally fall to the lot of experienced practitioners of made reputation, into the hands of a fresh set of younger men is bound to produce entirely different results in an architectural sense, and results probably less considered and mature than under the ordinary course of practice. It is certainly a point whether a great architectural idea will inevitably come within a given set period. But these half-spoken fears are surely more imagined than real. Even in practise there are few client bodies willing to wait indefinitely for a scheme, and the practitioner is generally bound more or less to a date, if not so rigidly as under competition conditions. So there is really far less of a difference between the two conditions than would appear on their face value.

Again, nobody imagines for one moment that a winning competition scheme commits the building-to-be to a fixed and unalterable form. It is, after all, no more than a preliminary sketch, out of the lines of which much mature thought and study must be spent before an actual building is given birth. Here, again, there is little difference in process than when in private practice a sketch scheme is developed through working drawings to the fulfilment of actuality.

Finally, there is that well-worn objection based upon the fruitless effort of unsuccessful competitors, and it is indeed easy to devise statistics to show the vast number of hours that are spent in offices scattered throughout the country without any reward for the labour. Limited competitions have been advocated with payment to all competitors, as a partial remedy. We have always sympathised with the labourer who is unrewarded, but, after all, entry is not compulsory, and competitors enter with their eyes open, and with often the slenderest hope of success. Their reward is really the just fruits of effort, for they are the bigger for having tackled a big thing in a big way, and the richer for the experience. To reward with money all the competitors in an open competition is, of course, an economic impossibility, while to limit their number by selection, would shut the door upon many obscure abilities, indeed upon most of the winners of first competitions. Hidden talent would become finally buried talent in most cases if such so-called reforms were called into being, and there will not be found many who would support them if called to vote.

In all things Nature rules us with a wise law of average that alone corrects many man-made anomalies, and in the field of competitions the same law watches wisely over events; so that looking back, there are very few buildings that have arisen out of open competition that do not amply justify the means by which they were called into being. We consider ourselves fortunate in being able within one week to congratulate the authorities at Southampton and Lewisham upon having placed in their hands the means of presenting themselves with two public buildings such as they have sought. We look forward to the day when their aspirations become finally translated into the facts of utility and beauty.

NOTES

The Charing Cross Proposals.

THERE are many questions which seem difficult to answer, and the following from a correspondent are amongst them. He says, "How is it that a body of the intelligence of the London County Council can have passed such an undesirable scheme as that approved for the Charing Cross improvement? And how is it that in view of such a happening there has not yet been any public protest from the Institute, the Academy, and the London Society? There has been, perhaps, an exaggerated censure of the Institute for its inaction as to the preservation of Newcastle House at Lewes, but this is a small matter compared with proposals which, if carried out as indicated by the L.C.C., would, by the removal of one eyesore, create others of a much more serious kind and extent. Here, surely, is a case for the strongest possible architectural protest!"

The New St. Paul's Bridge Scheme.

THE letters from Sir Banister Fletcher and Mr. Mervyn Macartney on the proposed new direction for St. Paul's Bridge scheme carry much weight against the proposal. Mr. Macartney says it gives him the gravest concern for both the safety and dignity of the Cathedral since, far from meeting the objections of the Cathedral authorities, they in many respects intensify them. The letter from Mr. W. Rees Jeffreys still further punctuates the objections to the new proposal. The Council of the London Society "expresses the most fervent hope that the Corporation of the City of London will again endorse in no uncertain fashion its already thrice-recorded intention not to proceed with the unwanted bridge." And yet, in spite of these serious and strongly-worded objections, this new proposal has been approved by the Corporation Committee!

Cheltenham.

A SPECIAL value is given to the Guide to the Church Congress and its exhibition at Cheltenham which closes to-day by the articles on Cheltenham and the churches of Gloucestershire by Mr. Thos. Overbury, F.R.I.B.A. The articles are well illustrated by some of the fine typical Gloucestershire churches. Though Cheltenham is an old foundation, it had a population of only 1,500 at the beginning of the 18th century. Something akin to the development of Bath under the influence of the Woods, Cheltenham was developed in the later Georgian or Regency styles and acquired a large measure of quiet dignity in the Montpelier area and the Pittsville Estate. It is stated that in the decade from 1821 to 1831 houses were erected at the rate of one a day.

Town Planning Legislation.

IN view of the probability that the Government next year will find it necessary to introduce town planning legislation, the Council for the Preservation of Rural England, we understand, hope that in the next few months Mr. Neville Chamberlain will receive a deputation that was postponed from last July. This Council, of which Lord Crawford is President, have put forward a number of suggestions. They recommend that town planning powers should be extended to County Councils. They hope that the Government will prepare a series of model designs for arterial roads so as to provide for pedestrians as well as for motors, and for planting trees and shrubs. Special care would be taken in such designs to preserve hedges and to protect existing buildings of architectural merit. There has been a variance of opinion on the recommendation that public authorities should, subject to the approval of the Minister of Health, be given power to purchase land, so that, as owners, they may be able to control absolutely the use of land adjoining arterial roads and to stimulate "grouped" as opposed to "ribbon" development. Certain of the landowners upon the Council for the Preservation of Rural England disagree with this recommendation, but it is hoped that unanimity will be possible before the deputation is received, possibly in the late autumn, by Mr. Neville Chamberlain on behalf of the Prime Minister. There is already a large measure of agreement, we are informed, on two other suggestions that are to be made to the Government. The first suggests that an executive Joint Town Planning Committee, when three-quarters of the authorities composing it are in agreement, should be empowered to impose on the remainder a joint scheme as approved by the Minister of Health. The other suggestion is that betterment recoverable by a local authority should be treated similarly to compensation payable to an owner, namely, in respect of the whole amount, instead of one-half as at present.

Chiming Clocks.

A CORRESPONDENT in the *Times* has protested against the church chime nuisance, and it cannot be denied that clocks that chime the quarters the whole night through are a nuisance. Those that live adjacent to such chimes become inured to them, but visitors who are not used to the bells are often kept awake half the night. The suggestion put forward is that chiming clocks should be compulsorily fitted with mechanism that stops the chiming during the night. Such mechanism is in use in up-to-date buildings, and the old belief that a night's rest was of no especial consequence is rapidly dying out. Modern life has become so hectic and so noisy that every avoidable disturbance ought to be eliminated in the interests of the public health.

From a Sketch by LT.-COL. H. P. CART DE LAFONTAINE, A.R.I.B.A.

From the R.I.B.A. Exhibition.

From a sketch by Lt.-Col. H. P. Cart de Lafontaine, A.R.I.B.A.

New York.

Mr. Charles Whibley, in an essay on New York, gives us his opinions upon sky-scrapers: "The architects of America have not only composed works in accordance with the old traditions and in obedience to ancient models; they have devised a new style and a new method of their own. To pack a vast metropolis within a narrow space, they have made mountains of houses. When the rock upon which their city stands proved insufficient for their ambition, they conquered another kingdom in the air. The sky-scrapers which lift their lofty turrets to the heavens are the pride of New York. It is upon them that the returning traveller gazes most eagerly as he nears the shore. They hold a firmer place in his heart than even the statue of Liberty, and the vague sentiment which it inspires . . . . . The sky-scraper presents a new view of architecture. It is original, characteristic and beautiful."

New York or London.

Further on he gives the reply to those who believe that American conditions are the same as ours:—"New York is a southern, sunlit city, which needs protection from the heat and need not fear obscurity. Even where the buildings are highest, the wayfarer does not feel that he is walking at the bottom of a well. But, let it be said at once, the sky-scraper would be intolerable in our grey and murky land. London demands a broad thoroughfare and low houses. These are its only defence against a covered sky and an enveloping fog, and the patriotic Americans who would transplant their sky-scrapers to England merely prove that they do not appreciate the logic and beauty of their own design.

Ugly Houses.

"Most houses are extraordinarily ugly, uninspired, and depressing," says an architect. Commenting upon this observation a popular weekly magazine adds the following:—"Still, as long as they have garages, nobody stays long enough in them to mind." The joke, apparently, is meant to be obvious: so long as people have cars they spend less time in their homes which, consequently, can be as ugly as sin. But is this the real joke? We rather fancy that the architect was referring to the appearances of the houses, and not to their conveniences or comforts—whatever they may be. If he were, we would remind our readers of an older joke of Kingsley's to the effect that the ugly appearance of a house did not matter as the owner lived inside.

The Real Joke.

The selfish truth in Kingsley's joke undoubtedly explains a good deal of the ugliness of his generation, whereas the motorist is not yet aware that his modern version of this old joke is really better and sadder than he imagines. He is glad to get away from his ugly house—and we don't blame him—but unfortunately he has overlooked the fact that he cannot get away from other people's ugly houses. That is the real joke. When they are all playing the same selfish game the result is stalemate.

The Consequences.

It appears, therefore, that an earlier generation loved its homes from the inside, whereas the present generation neither loves its home from the inside nor the outside. Through his own foolishness the motorist may be forced to seek refuge again in his own home until he has learnt how to make a country less ugly and depressing. We can assure him that this will be a much more serious problem than the efficiency of his motor-car, which by then will have more cylinders than he knows what to do with.

From the R.I.B.A. Exhibition.

Middle Temple Lane, looking Northwards.

From a sketch by Lt.-Col. H. P. Cart de Lafontaine, A.R.I.B.A.

GENERAL NEWS

The Singapore Naval Base.

The Admiralty has announced that the tender of Messrs. Sir John Jackson (Ltd.), of 53, Victoria-street, S.W.1, has been accepted for the construction of the new dockyard at Singapore. The contract time for completion is seven years.

An Architect's Estate.

Mr. Vincent Alexander Lawson, of Cheltenham, Cirencester, and Stroud, civil engineer and architect, a director of several companies and proprietor of the Plough Hotel, Cheltenham, who died on June 26, aged 67, left estate of the gross value of £21,196, with net personalty £15,453.

Mr. Henry Hartley's Estate.

Mr. Henry Hartley, of 25, Ullet-road, Liverpool, architect and surveyor, a former president of the Surveyors' Institution, well known as an arbitrator and witness in large compensation cases, a referee under the Finance Act, 1910, who had for many years acted for the Liverpool Corporation and other large public bodies, and who died on August 2 last, aged 83 years, left estate of the gross value of £187,525 8s. 5d.

The Incorporated Association of Architects and Surveyors.

The annual general meeting of this association will be held at the Institute of Incorporated Architects and Surveyors, Wilbraham-place, S.W.1, at 2.30 p.m. on Saturday, October 6. On the evening of the same day the third annual dinner will be held at the Hotel Cecil, W.C., at 7.30 p.m. Reception by the President, Major R. I. Tasker, M.P., and Mrs. Tasker, at 7 p.m.

St. Paul's Bridge.

On behalf of the Dean and Chapter of St. Paul's, Canon Alexander has sent the following letter to the Guildhall to be laid before the next meeting of the Corporation :—

St. Paul's Cathedral, E.C.4.
October 1, 1928.

Dear Sir,—I am directed by the Dean and Chapter of St. Paul's to inform the Court of Common Council that, as far as they have had the opportunity of studying the new proposals for St. Paul's Bridge, they regret to say that the apprehensions which they reluctantly expressed last year before the Royal Commission have been rather intensified than diminished by the form which the scheme has now taken.

Yours faithfully,
S. A. Alexander,
Treasurer to the Chapter.

The New Library, Cambridge University.

The offer of a gift of £700,000 from the Rockefeller Foundation to Cambridge University was announced on Monday in his valedictory address to the Senate by the retiring Vice-Chancellor, the Rev. G. A. Weekes, Master of Sidney Sussex College. He referred to the problem of the University Library, which had been before the authorities for nearly half a century, and had during the past ten years given cause for grave anxiety. The cost of carrying out the plans, provisionally prepared by Sir Giles Gilbert Scott, he added, was estimated at £500,000 for building and maintenance. This offer formed part of a larger proposal, which provided for certain developments in the physical and biological studies of the University, which had for some time been regarded as urgent. The offer in its entirety had yet to be laid before the University. It amounted to a gift of £700,000 sterling. The condition attached was one which the International Education Board was accustomed to make, namely, that the University should raise £229,000, the balance of the sum required for the completion of the whole scheme.

St. George's Chapel, Windsor.

H.M. the King has graciously accepted an offer of £50,000 from Lord Woolavington for the repair and equipment of St. George's Chapel, Windsor. Lord Woolavington has also given £125,000 to the Middlesex Hospital for the provision of middle-class wards.

Rebuilding in Quality-court, Holborn.

Efforts are to be made to retain the old William and Mary atmosphere of Quality-court, a *cul-de-sac*, off Chancery-lane, in connection with the proposed erection of a new office block there. A design, with this object in view, has therefore been prepared by Mr. Gervase Bailey, of King's-building, Smith-square, Westminster, the elevation of which will be carried out in the old red bricks obtained from the demolition of the existing building. The entrance and hall will be largely built of oak. The building will be of six floors and will be shortly commenced by Messrs. C. F. Kearley, Ltd., 4, Great Marlborough-street, W.1. The agents for the property are Messrs. White, Druce & Brown, 6, Hanover-square, W.1.

RENAISSANCE ARCHITECTURE

Sir Banister Fletcher, F.S.A., F.R.I.B.A., gave on Wednesday last the first of a series of 24 University Extension Lectures on "Renaissance Architecture," to be given every Wednesday at 6 p.m., at the Central School of Arts and Crafts, Southampton-row, W.C.1. The lecturer described the nature and scope of the subject, which, he said, had become a necessary part of a general education; for architecture was a material exponent of civilisation, and a record of human aspirations and activities, while modern design was founded on ancient precedent. Thus, a knowledge of architecture, more especially of the Renaissance style, which came down to our times, should form part of the equipment, not only of the architect, but of artists and craftsmen, antiquaries and connoisseurs, photographers, journalists, and even authors, for a story without the *mise en scène* supplied by buildings was like a play without stage scenery. Teachers now realised that architecture was more necessary than dates for understanding general history and the social life of our ancestors. For the traveller, such knowledge was essential to appreciate the purpose and design of the buildings and ruins that he visited, while those who could not travel would be transported by the aid of some 1,200 lantern views to the actual buildings and their surroundings.

The lecturer reviewed the evolution of ancient and mediæval architecture that led to the Renaissance style. Coming to the latter, he dealt with some of its influences which helped to promote that new spirit of inquiry which led to the Reformation and the renaissance in literature and art. Arising as a new style in Florence, Renaissance architecture spread through Europe in the sixteenth century, though modified as it went by local influences, such as climate, material and historical events. The lecturer illustrated Renaissance buildings in Italy, France, Germany, Belgium, Spain and England, and said that he would endeavour to introduce the atmosphere of the Renaissance and show the connection between architecture and history, and hoped that the lectures would help to an appreciation of old buildings, and so lead to an improvement in English architecture.

The next lecture will be "A Comparative Analysis of Mediæval and Renaissance Architecture. Particulars of the series may be obtained from the Registrar, the University Extension Board, University of London, S.W.7.

COMPETITION NEWS

Municipal Buildings and Market Hall, etc., Ellesmere Port and Whitby.

Ellesmere Port and Whitby U.D.C. invite architects to submit competitive designs for proposed Municipal Buildings, Market Hall, etc. Mr. T. R. Milburn, F.R.I.B.A., is the assessor. Premiums of £100, £75, and £50 are offered for the designs placed first, second, and third respectively. Conditions and particulars, together with a plan of the site, can be obtained from Mr. Thos. W. Francis, Clerk to the Council, Council Offices, Ellesmere Port, on deposit of £1 1s.

Entertainment Pavilion Competition, Exmouth.

The assessor in this competition (which we illustrate this week), Mr. C. Cowles-Voysey, A.R.I.B.A., made his award as follows :—

First : Mr. E. C. P. Allen, A.R.I.B.A., 1, Montague-street, London, W.C.1.

Second : Messrs. Easton & Robertson, 36, Bedford-square, London, W.C.1.

Third : Messrs. W. B. Nicholls & Basil Hughes, A.R.I.B.A., P.A.S.I., 4, Raymond Buildings, Gray's Inn, London, W.C.1.

The designs will be exhibited at "Highfield," Carlton Hill, Exmouth, on October 6, and from October 8 to 12, both days inclusive, from 10 a.m. to 4 p.m.

R.I.B.A. Aerodrome Competition.

The jury for the R.I.B.A. competition for a design for an aerodrome announce that as the result of the preliminary stage of the competition—details of which were given in *The Builder* for March 2—the following ten competitors have been selected to take part in the final competition :—

Laurence Williams; D. H. McMorran (Bartlett School of Architecture); L. C. S. Farmer (School of Architecture, the Polytechnic, Regent-street, W.1); C. A. Minoprio (School of Architecture, University of Liverpool); F. S. Fry; N. B. Hillier (A.A. School of Architecture); M. Hartland Thomas (R.W.A. School of Architecture, Bristol); Miss Ruth Ellis (A.A. School of Architecture); W. R. B. Bertram (Glasgow School of Architecture); F. W. Rowbotham.

Housing Scheme at Holyhead.

Plans for parlour and non-parlour houses for a housing scheme of approximately 50 houses at Porthyfelin-road, Holyhead, are required by the Holyhead U.D.C. Architects wishing to tender are requested to send in plans, specifications, estimates and fees to T. R. Evans, clerk to the H.U.D.C., by October 12.

Roman Fortress at Caerleon.

The excavations on the site of the Roman legionary fortress at Caerleon have been concluded for this year, states Mr. V. E. Nash Williams, Keeper of Archæology, National Museum of Wales, and a preliminary survey of the results shows that the season's work has been perhaps the most important and prolific yet carried out on the site. The accumulated evidence now makes it certain that the fortress was first established by the Second Augustan Legion in A.D. 75, following its final defeat of the Silures and not, as was once thought, in A.D. 50, the date of the Legion's first entry into South Wales.

Ripon Cathedral; Preservation Scheme.

The Bishop and Dean of Ripon have issued an appeal for £10,000 to enable urgent restorations to be made to the Cathedral. The ten large clerestory windows are, we learn, in a very serious state of decay and there is great danger of the glass falling through the rotted mullions. The library also requires considerable attention and new heating and lighting systems are needed urgently. The sum aimed at will be sufficient to allow for a standing maintenance fund.

"THE BUILDER" DEBATE—X

PAYMENT BY RESULTS.

Sir,—I note that in your issue of September 14 you have two letters on this subject, and in each it appears that the employer is the injured party and that he himself could not do wrong. I have done some piecework. The practice of one particular firm I worked for, a trade joinery shop (and I think it would be typical of the rest), was to give out the first portion of every job to two selected men to see what it could actually be done for, and all over 9d. per hour was knocked off for the remainder of the work. The firm knew what they could well afford to pay; why knock the price down to the lowest fraction? Sometimes men could not earn 9d. per hour; the firm did not discharge them or they would have had to pay one hour's notice, so they declined to give them any more work. Speaking as a joiner, my experience is that the ordinary builder does not have a sufficient quantity of better-class work to fix a piecework rate on, so the best mechanic never gets the bonus, but the worst, who can knock sashes, etc., together, and who has neither many tools nor much principle, gets it. Most employers seem to forget that the wages agreed upon are the minimum and treat them as if they were the maximum.

With reference to a man and a boy doing as much work in two days as two men in ten days, ever since Noah built the ark there have always been some slackers. But there are even in these evil days, both amongst employers and employed, men who live up to a good standard. I know workmen who work as hard when not watched as when they are being watched—even harder. My experience is that piecework is bad for the employer, worse for the customer, and much worse for the workers. I suppose that Mr. Thorne was in the same state of mind when he saw those lovely cottages springing up all over our favoured land (and owned by those workers in the building trade who would submit to payment by results) as when he saw the navvies cleaning their boots. But perhaps the cottages were in reality mushrooms; I note they are in season now.

Payment by results has been practised in this country for hundreds of years, but I doubt if one per cent. of the building trade operatives ever got a cottage out of it. I heard of one man working on the London Hospital who made a great effort to secure one, but he worked so hard that his heart gave way so they put him in a box instead of a cottage.

I think both Mr. Thorne and "Positive" will agree with me that employers make much larger profits and in less time when wages are high than when they are low. Work may require more careful watching and anxious thought, but the point they are aiming at is not to build cheap cottages. All right-thinking men will, I believe, agree that in 90 out of every 100 cases, payment by results enslaves and impoverishes the worker.

H. Dearden.

Sir,—I recently had a talk with a mason working in a privately owned quarry. He was paid on a schedule rate arranged with the owners' agent. The wages he made, as disclosed to me, were very good, and he said that he constantly found himself able to take a day off if he wanted one while turning out sufficient work. His men worked with him presumably on a like basis, which was of many years' standing, and therefore presumably satisfactory to both sides.

The average craftsman is a good chap with plenty of common sense, and could often get through much more, earning more money and leisure, if difficulties in the way could be overcome.

Alan E. Munby.

ARCHITECTS' DRAWINGS AND SKETCHES

The sketches which are made in holiday mood will always have an attraction, for the impulse which creates them is sure to evoke a sympathetic handling of the subjects, and therefore to give pleasure to all who see them. Of course, a large number of sketches are made with an eye to their possible commercial value, but those which give us the most sincere pleasure are what an irresponsible artistic impulse creates. But even amongst professional painters of pictures the sketch generally has a freshness and freedom which gives it a value not usually found in finished painting. The collection of water colours and black and white drawings and etchings at the Institute galleries number close on three hundred subjects. They make a very interesting exhibition which will bear comparison with many exhibitions of work by professional painters. There is not perhaps so much of the holiday spirit of sketching as we might have hoped to find, though there are several which have evidently been done from a genuine artistic impulse. Amongst such a noticeable one is the excellent colour pastel by Mr. D. B. Niven, which is a direct study from nature in Switzerland. The colour effect is very pleasing and the addition of some human interest would perhaps have enhanced its value beyond a merely decorative charm. Hung above this is a delightful water colour by Mr. Curtis Green (one of a set of three), and its colour and atmosphere and pleasing composition are all expressed in a delightfully delicate way.

Sir Giles Scott's two drawings of his churches are a tribute to his fine feeling for drawing. Mr. Edgar Wood contributes some delightful studies in colour. Mr. A. C. Fare has two careful water colour drawings. Mr. Raffles Davison has five drawings of good landscape studies in pastel. Mr. Farey has two or three vigorous water colours of good subjects. Mr. A. McGarell Hogg has a delicate and pleasing little study of Corfe Castle. It is a pity that the exhibition is open for so short a time.

An outstanding drawing is Prof. Richardson's Gothic fantasy, which is admirably set forth in red and brown ink. One of the most interesting drawings is that of Canterbury Cathedral from the meadows, beautifully drawn by Prof. Beresford Pite, who has also an interesting pen drawing of Klingen Thor, Rothenburg. Sir Reginald Blomfield's sketch in the garden of the Villa D'este is very suggestive.

Below this hangs one of Mr. Curtis Green's best pencil sketches (Siena). A dainty little drawing in pencil is that by Mr. Walter M. Keesey of Salamanca. The many etchings include some very good work, such as the Harlech and Carnarvon by Mr. J. Mervyn Pritchard, who also shows some charming little plates of Snowdon, Aber, etc. A good broad effect is the Amberley Church by Mr. A. W. Stroud. A good etching is that of Sutton Pool, Plymouth, by Mr. V. S. Cummings. Mr. Dixon Spain shows a finely-drawn figure of a lady. Mr. Jasper Salway has a delicate outline drawing in brown chalk of Mont St. Michel. Mr. J. Keppie's pencil studies are vigorous and pleasing. Lt.-Col. Lafontaine's two architectural studies are good bits of pen drawing. There are many other subjects which might well be referred to, but our limit of space is reached.

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

"Invitation to Tender."

Sir,—Your correspondents, "J. S. H." and "One of Twenty," are right in expressing their feelings as to the absurdities of the present system of tendering. I have often marvelled at the callousness of architects in this respect. There are several obvious and reasonable points which might guide us in dealing with such problems.

It is certain that if twenty contractors are estimating for the same work they cannot be compared on an equal footing, in spite of the most binding clauses in the specification. The quality of the work of twenty men will vary so much that their estimates can give no real indication of the fairness of their offers except to the architect, who knows the individual quality of each of the contractor's work. Clients are often to blame for this waste of time and energy when they insist on getting offers from contractors who are noted for doing cheap work, although the architect would refuse to employ such contractors under any circumstances.

It is a good principle to refuse to allow any contractor to offer if you would on no account employ him, even if he came in with the lowest estimate. Where a client insists on taking estimates from such contractors the only policy to adopt is to tell him to take his work elsewhere This I have done, much to the astonishment of such clients. Such methods would tend to raise the standard of work, and that is what we all want. The fairness of the lowest estimate can only be reckoned on the basis of quality, and the architect is the only sure judge as to this.

If an architect is to be held responsible for his work he should have the sole "say" in appointing the contractors. For any average job half a dozen offers, from contractors whose work is known to be about the same quality, are ample. Borough Councils are said to have no conscience, but architects, as a class, are fair and reasonable gentlemen.

B. B.

R.I.B.A. (Archibald Dawnay) Scholarships.

In accordance with the terms of the will of the late Sir Archibald Dawnay, the Royal Institute of British Architects have awarded one scholarship of £75 for the academical year 1928-1929 to Mr. L. A. Chackett, of the School of Architecture, Birmingham, and one scholarship of £50 for the academical year 1928-1929 to Mr. John Hughes, of the School of Architecture, University of Liverpool. Mr. W. G. Plant, of the School of Architecture, University of Liverpool, who was awarded a scholarship of £50 for the academical year 1927-1928, has been granted a renewal of his scholarship for the year 1928-1929. The scholarships are intended to foster the advanced study of construction and the improvement generally of constructional methods and materials and their influence on design.

The Tower of London.

The lectures of Mr. Allen S. Walker, Extension Lecturer to the University of London, on the history of the Tower of London were resumed on Tuesday at 11 a.m. The lectures will be held every Tuesday (but not on Friday, as hitherto) until the end of January (except on Christmas Day and New Year's Day), the subject being "The Tower as Fortress, Palace and Prison." Each lecture will be illustrated by lantern slides and will be followed by a visit to part of the Tower. Admission tickets (price 1s. 6d. each) may be obtained at H.M. Office of Works, Storey's-gate, Westminster, S.W.1, or at the Tower of London.

WALKER ART GALLERY EXHIBITION

The Arts Committee of the city of Liverpool have made a new departure in the Walker Art Gallery Autumn Exhibition which was opened on September 29. In former years, in a dim corner of a side-lighted gallery, were hung a few architectural drawings cheek by jowl with a few trade designs by decorative and furnishing firms. This year a special room, about 22 ft. square, excellently lighted, in a very central position, has been set apart for architecture. All the architectural members of the Royal Academy were specially invited to send drawings, and they have responded most handsomely. They have contributed 16 designs, nearly all of which have been exhibited at the Royal Academy and illustrated in our pages. A few local architects were notified, but the greater number did not hear of the new arrangement until too late. In the catalogue appear the names of seven members of the R.A., thirteen other architects, and half a dozen trade firms. Liverpool, with its plethora of great buildings and as the home of the pioneer provincial Architectural Society and the pioneer provincial School of Architecture, is the right place for an exhibition of the works of our leading architects. We feel sure that, if the Liverpool Arts Committee will provide the special room next year, they will meet with much greater encouragement.

The place of honour is occupied by Mr. Cyril Farey's drawing of Sir E. L. Lutyens' "Britannic House." An artist pointed out how much the drawing gains by its dark mount and the black car standing at the great doorway. Not so well known is Sir Edwin's "Institute at Hampstead Garden Suburb." The massing and detail is more characteristic of the designer than of a garden suburb. Sir Reginald Blomfield sends the "Second Design for the new Lambeth Bridge." The boiler plates and rivets are architecturally treated with considerable ingenuity, but the effect must depend very greatly on the quality and tone of the paint and its relation to the masonry of the piers. The little yellow brick aisleless "Church at Ypres," designed and illustrated by Sir Reginald Blomfield, is extremely interesting. It fits in between two domestic buildings with picturesque stepped gables. The east end has a Flemish gable on which perches somewhat abruptly a great stone cross. Mr. Guy Dawber sends a drawing by Mr. P. D. Hepworth of a delightful country house sitting on rocks on an exposed site. Hung next each other are bird's-eye views of the "Durham County Colony for Mental Defectives" by Messrs. Rees and Holt, and a "Thames-side Country Club" by Professor Reilly. Mr. Beveridge sends a drawing by Mr. Cyril Farey of a "Proposed Power House on the Erne," the great scale of which is emphasised by some well-placed figures. Mr. Keay, the Liverpool Director of Housing, illustrates three huge blocks of tenements. No. 392 is a particularly vigorous chalk sketch with a clever conventional sky, but the draughtsman's name is not given. No. 391 in the wall treatment strikes the right civic note, but the perspective shows somewhat unhappy intersections of the roofs. In No. 393 is a series of great blocks well set back from the thoroughfare, with a curious absence of doorways. Messrs. Harris and Hobson send some pleasant little houses, and so do Messrs. Beckwith and Lawrence. Messrs. Grayson and Barnish send a bank, with four floors of offices over, which we understand has been carried out in silver grey bricks. Three schools are illustrated—an "eleven plus" school at Birkdale" by Messrs. Grayson and Barnish, a building in brick with a dignified approach, and two very large secondary schools at Widnes and Lytham by Mr. Frank Waddington.

EXHIBITION NOTES

We were reminded last week that modern craftsmanship can make a real claim on our appreciation by the exhibition of some beautiful work by Mr. Reginald Hallward, before being forwarded to its destination. It is obvious that much excellent work is being placed in various parts of the country which is only seen by a comparatively limited number of people. As an instance of this one may take the large gesso panel which Mr. Hallward was showing, and which is being placed in a side chapel in a provincial church. This very interesting panel, some ten feet in length, is one of the largest recently done. It represents the adoration of the wise men, and shows how vivid and expressive in form and colour such a panel may be in the hands of an experienced craftsman. Gesso has one advantage over merely flat painting, that the slight relief and modelling which it gives produces a much more vivid and emphatic effect. The delicacy and brilliance of this panel by Mr. Hallward shows how telling this kind of work may be in the hands of a capable decorative artist. It is being placed in St. Margaret's Church, Leicester.

Amongst other exhibits by this artist were several panels of a fine series of coloured glass windows being placed as a memorial to American soldiers in the chapel now being erected at Brookwood Cemetery, by the American Government. The handling of the form and colour, in which a little enamel painting has been added in the medallions, is as good as anything we have seen, and shows that the art of modern coloured glazing is very much alive. In comparison with the gesso and the glazing, Mr. Hallward's altar painting for Abberley Hall Chapel has a sobriety which is not without its charm in contrast to the brilliance of gilded relief and the sparkle of glass.

MEETINGS

Friday, *October* 5.

Royal Sanitary Institute. Mr. S. W. Mobbs on "Economy in Refuse Disposal." At the Town Hall, Lowestoft. 5 p.m.

Saturday, *October* 6.

Institution of Municipal and County Engineers. North-Western District Meeting. At Stockport. 11 a.m.

The Incorporated Association of Architects and Surveyors. Annual Dinner. At the Hotel Cecil, W.C.2. 7.30 p.m.

Institution of Municipal and County Engineers. Joint Meeting of South Wales District and the Institution of Civil Engineers (S. Wales Association). At Cardiff. 10.15 a.m.

Tuesday, *October* 9.

Institution of Heating and Ventilating Engineers. Dr. H. M. Vernon on "Methods of Heating and Ventilating Schools and their influence on Health." 6.45 p.m.

Wednesday, *October* 10.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher, F.R.I.B.A., on "A Comparative Analysis of Gothic and Renaissance Architecture." 6 p.m.

Institute of Fuel. Mr. T. A. Peebles on "Fuels for all purposes." 6 p.m.

St. Paul's Ecclesiological Society. Mr. A. Crow on "The Clerks' Well at Clerkenwell." 9, Conduit-street, Regent-street, W.

Thursday, *October* 11.

University of London. Miss E. Jeffries Davis on "Historical Factors of the Problem of London Traffic." At Gower-street, W.C.1. 5.30 p.m.

Wednesday-Saturday, *October* 10-20.

International Exhibition of Inventions. At Central Hall, Westminster.

THE R.I.B.A.

Probationership of the R.I.B.A.

The Council of the R.I.B.A. call attention to the standard of general education required for the probationership of the R.I.B.A. Except in very special cases, a headmaster's certificate on the official form will not be accepted after December 31st, 1928, and no one will be registered as a probationer unless he or she has passed one of the recognised public examinations in the following subjects:—English composition, elementary mathematics (arithmetic, algebra, geometry), mechanics or physics or higher mathematics or chemistry or physics-and-chemistry, history or geography, one language other than English.

Drawing or art is now accepted (1) as an alternative to a subject from the group of subjects comprising mechanics or physics or higher mathematics or chemistry or physics-and-chemistry, or (2) as an alternative to one of the subjects from the group history or geography; or (3) as an alternative subject to one language other than English.

Candidates who submit a certificate of having passed one of the recognised public examinations, but who do not include drawing or art as one of their subjects, are required to submit in support of their applications drawings in accordance with the regulations already laid down.

The following are the recognised examinations:—

The Entrance Examination of Schools of Architecture recognised by the R.I.B.A. for the purpose of exemption from its Examinations.

The Responsions of the University of Oxford.

The Previous Examination of the University of Cambridge.

The Matriculation Examination at any University in the British Empire.

The School Certificate Examination of the Oxford and Cambridge Schools Examination Board.

The School Certificate Examination of the Oxford Delegacy for Local Examinations.

The School Certificate Examination of the Cambridge Local Examinations Syndicate.

The School Certificate Examination of the University of Bristol.

The School Certificate Examination of the University of Durham.

The General School Examination of the University of London.

The School Certificate Examination of the Northern Universities Joint Matriculation Board.

The School Certificate Examination of the Central Welsh Board.

The Higher Certificate Examination of the Oxford and Cambridge Schools Examination Board.

The Higher School Certificate Examination of the Oxford Delegacy for Local Examinations.

The Higher School Certificate Examination of the Cambridge Local Examinations Syndicate.

The Higher School Certificate Examination of the University of Bristol.

The Higher Certificate Examination of the University of Durham.

The Higher School Certificate Examination of the University of London.

The Higher School Certificate Examination of the Northern Universities Joint Matriculation Board.

The Higher Certificate Examination of the Central Welsh Board.

The Leaving Certificate Examination, Scottish Education Department.

The Senior Certificate Examination of the Ministry of Education, Northern Ireland.

The Examination for the First Class Certificate of the College of Preceptors.

The School Leaving Certificates of the following Universities:—The University of Aligarh, the University of Allahabad, the Benares Hindu University, the University of Bombay, the University of Calcutta, the University of Decca, the University of Delhi, the University of Lucknow, the University of Mysore, the University of Nagpur, the Osmania University, Hyderabad (Deccan), the University of Patna, the University of Punjab, the University of Rangoon.

Or such other examinations as may be satisfactory to the Board. The Junior (Honours) Local Examinations under the authority of any University in the British Empire will be accepted until December 31st, 1928.

SCHOOLS AND INSTITUTES

UNIVERSITY OF LIVERPOOL.

The 1928-29 session opened at Liverpool University School of Architecture on October 4. The School of Architecture, which was founded in 1894, and is under the direction of Professor C. H. Reilly, O.B.E., F.R.I.B.A., Roscoe Professor of Architecture, offers courses which are designed to provide a full professional education at a University standard for all who intend to practise as architects and who wish to acquire their training in an atmosphere of liberal studies side by side with the students of other professions. To meet the varied needs of architectural practice as they have now developed, the School offers courses of study leading, if preceded by matriculation, to the degree of bachelor of architecture (B.Arch.) or, if not so preceded, qualifying for the diploma in architecture. These courses, which are identical both for the degree and for the diploma, extend over five years and are of three kinds —the pass course, the course with honours or distinction in architectural design and the course with honours or distinction in architectural construction. The curriculum of the first three years is common to all three courses whilst that of the fourth and fifth years in the case of students taking honours or distinction goes beyond the pass type. Each of the courses is devised so as to equip the student with the most efficient training possible for the vocational work he proposes to do. Under the Regulations governing the courses of study students are required to spend six months of their fourth year in some approved form of practical work, usually in an architect's office where they can earn a salary. For some time past the School has established connections with certain of the best-known architectural offices in New York. Arrangements have been made to admit Liverpool students straight into the country. The School was the first to formulate and to present degree and diploma courses of a full professional kind to the Board of Architectural Education of the Royal Institute of British Architects and was the first of the six schools now recognised by the Institute to secure for its graduates exemption from all subjects but one of the Institute's final examination. Full details may be obtained from the secretary.

BARTLETT SCHOOL OF ARCHITECTURE

The session 1928-29 opened at University College on Monday, October 1. A three years' course of training leading to a certificate in decoration has been instituted with the co-operation of the Incorporated Institute of British Decorators. The lecturer in decoration, Mr. H. Warren Wilson, will deliver an address on "English Decoration in the 17th and 18th Centuries" on Thursday, November 29, at 5.30 p.m. A course of lectures, with lantern illustrations, on "The History of Decoration," will be given by Professor Sir Flinders Petrie on Thursdays at 2.30 p.m., beginning with a public introductory lecture on October 4. Among the public lectures that have been arranged for the first term are the following:—"The Art and Architecture of Ancient Egypt," by Miss Margaret A. Murray, on Thursdays, November 22, 29 and December 7, at 8.15 p.m.; "The Furniture and Equipment of the Home," by Mr. H. Clifford Smith, Assistant Keeper, Victoria and Albert Museum, on Tuesday, November 20, at 5.30 p.m.; "The Housing of Books," by Professor A. E. Richardson; and "University Library Buildings," by Mr. Richard Offor, on Wednesdays, December 5 and 12, at 5.30 p.m.

Particulars of these and other public lectures may be had on application to the Secretary, University College, London, W.C.1. A stamped addressed envelope should be enclosed.

THE NORTHERN POLYTECHNIC, HOLLOWAY.

The Northern Polytechnic School of Architecture, whose new session has just commenced, is recognised by the Royal Institute of British Architects, and is able to offer a complete architectural education at nominal fees. Those who have outstanding ability in drawing should take steps to ascertain whether their work is of a standard which will justify a day-school training, whilst those who have already entered architects' offices should join the evening school of architecture in order that they may reach a high standard of proficiency in their profession. The head of the department is Mr. T. E. Scott, A.R.I.B.A., and there is a full staff of lecturers. Those who wish to join the school should write for full information to the Secretary, Holloway-road, N.7.

UNIVERSITY OF SHEFFIELD.

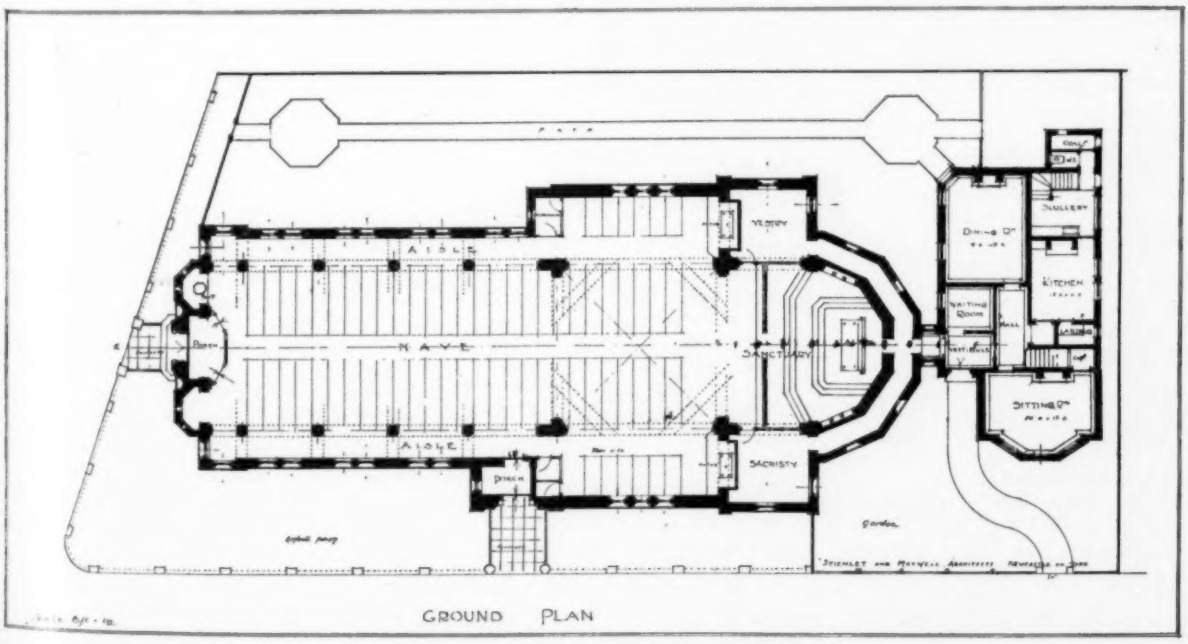
The Department of Architecture of the University of Sheffield, of which Mr. Stephen Welsh, M.A., B.Arch., A.R.I.B.A., is chief, has been recognised since 1911 by the R.I.B.A. for the purpose of exemption from its intermediate examination, which is granted to all students who have satisfactorily completed the three years of the school course. It is hoped, in the near future, to obtain from the Board of Architectural Education exemption from the R.I.B.A. final examination. Most of the full-time students, after completing the intermediate course, stay on for two years, preparing themselves for the R.I.B.A. final examination. All students are encouraged to spend part of their vacation in approved offices. The method of teaching is based on the general lines of the important architectural teaching centres. The department provides the following courses of study:—(a) B.A. course with honours in architecture; (b) diploma course; (c) certificate course; (d) part-time day course; (e) evening course in architectural design. Full details may be obtained from the Registrar.

THE POLYTECHNIC, REGENT-STREET.

We understand that for four years past the Polytechnic, Regent-street, W., has, in an experimental way, provided courses of instruction with the aim in view of obtaining the fullest value from the educational resources of the country in the development of national industry and commerce. For the coming session a big step forward has been made by the co-ordination and correlation for the first time of the scattered knowledge that has had to do duty in this field of education in the past, and arrangements are being made with the Institute of Industrial Administration to hold examinations under the joint control of the Institute and the Polytechnic. For the session beginning now the course will include such subjects as economics, industrial history, industrial psychology, personnel administration and welfare, costing, management, and statistics. Those who are interested can obtain details from the Director of Education of the Polytechnic.

COLLEGE OF TECHNOLOGY, MANCHESTER.

We have received from the Municipal College of Technology, Manchester, the prospectus of their university courses for the session 1928-29, whose Michaelmas term commences on October 4. Classes may be taken, amongst others, in mechanical engineering, electrical engineering, municipal and sanitary engineering, and applied chemistry. The department of architecture has now been confined to Owen's College. Full details may be obtained from the Registrar.



Church of St. Edward, Whitley Bay.

MESSRS. P. J. STIENLET AND J. C. MAXWELL, L. and F.R.I.B.A., Architects.

(*See page* 549.)

ILLUSTRATIONS

PLATES

New Dining Hall, Rossall School, Fleetwood.

We gave in our last issue a number of illustrations of the new dining hall and servery recently erected at Rossall School, together with a description and a list of the firms engaged on the work. We give on one of our inset plates this week a detail of the south elevation, with a plan. The work has been designed by Professor Hubert Worthington, of the firm of Messrs. Thomas Worthington and Sons.

Flats, St. Andrew's-square, Surbiton.

This scheme, promoted by the C. R. Osborn Estates, Ltd., of Surbiton, is now in course of erection. The entrances from St. Andrew's-square and the Portsmouth-road have determined the main axial lines. It is the intention of the promoters to retain as far as possible the beautiful grounds and many fine trees. The centre court will have a sunk lawn; tennis courts and games areas are in positions where there will be least disturbance to the tenants. Every endeavour is being made to break away from the conventional type of flats building usual in urban areas. A garage and a boxroom will be provided for each flat, which will also have a telephone and a refrigerator. Rubber flooring will be extensively used in bathrooms, corridors, kitchens, etc. The scheme illustrated shows the first portion. It is hoped at an early date to commence work on the second portion facing the Portsmouth-road, which will include club premises, dining-rooms, restaurant and recreation rooms, for the use of the tenants of the complete scheme. The facing bricks to be used are "antique purple stocks" (excepting dressings), supplied by Mr. F. C. Curtis, of Great Western-road, W.9.

Mr. J. B. F. Cowper, F.R.I.B.A., is the architect.

Alexandria Consulate-General.

The new Consulate-General at Alexandria occupies a prominent position facing the Mediterranean. In planning the building, advantage has been taken of the natural falls of the ground, the office approach being from the lower road towards the sea, and the entrance to the residential accommodation in the upper floors from a high-level road along the southern boundary of the site. The building thus appears as a three-story structure on the seaward side with the offices on the lowest floor, and as a two-story structure containing residential accommodation when viewed from the elevated ground to the south. The accommodation comprises, on the lower ground floor, a Court with Judges' room, offices for Consular business, and a room for the Consul-General. The two upper floors contain a drawing-room, dining-room, study and anteroom grouped around a central hall. Six household bedrooms and accommodation for European servants are provided on the top floor. Accommodation for native servants, chauffeurs' quarters and a garage are provided and are entered from an internal court to the west of the site. The building, which is now approaching completion, has been constructed with a frame of reinforced concrete and brick in-filling, all faced externally with stucco. The roofs are covered with red tiles.

Mr. James Grey West, of H.M. Office of Works, is the architect.

The Wallis Store, Holborn-circus.

During the course of last year, all the floors of the Wallis Store in Holborn Circus have been replanned, but the greatest effect is to be seen on the basement, ground and first floors, where the removal of party walls and the opening of large shopping floors, together with the provision of lifts and other conveniences, have constituted a remodelling practically equivalent to a rebuilding. The old shop fronts on the ground floor have given place to a large arcade, which provides a rendezvous for the shopping public, and gives a great increase of display window area. The accompanying drawings and photographs clearly show the nature of this work, which has been designed and carried out by Mr. Arthur F. Usher, F.R.I.B.A., and Mr. Joseph Hill, F.R.I.B.A., of the firm of Messrs. Yetts, Sturdy and Usher, of 34, Gordon-square, London.

Messrs. Woodward and Company, of 13, Wilson-street, Finsbury, London, were the general contractors, and the sub-contractors were as follows:—Moreland, Hayne and Co., steelwork; Siegwart Flooring Co., Ltd., floors; Greenway and Ludlow, Ltd., marble; Sage and Co., shop fronts; The Crittall Manufacturing Co., Ltd., steel windows and lanterns; Richard Crittall and Co., heating, ventilating and sprinklers; The Express Lift Co., Ltd., lifts; E. Pollard and Co., shop fittings and steel shutters; Terrano, Ltd., basement floor;; Engineering Works, Ltd., electric lighting; H. Pontifex and Co., sanitary fittings; F. A. Norris and Co., escape staircase; Highfield Foundry Co., Ltd., storage tanks; J. R. Pearson (Birmingham), Ltd., ornamental steelwork; Ide and Co., canopy glazing; Haywards, Ltd., pavement lights; The Empire Stone Co., Ltd., staircase; Lamson Tube Co., Lamson tubes; Private Telephone Co., telephones.

St. Edward's Church, Whitley Bay.

This church is situated on a site at the junction of Park-avenue and Coquet-avenue, and is built with Dutch bricks, with Dutch sand and lime facings to the interior, relieved with darker red and purple facings to the arches and piers. The brick arches of the entrances are accentuated by stone sub-arches with carved strapwork and carved capitals, characteristic of the Italian Romanesque churches of Northern Italy. The form of the ceiling of the nave is that of a barrel vault, pierced with lower cross vaults for clerestory windowe, the line of the nave piers being carried up and over the vault in a broad rib. The lantern tower at the crossing is square at the base on the crossing arches with octagonal superstructure. The apsidal end of the sanctuary is roofed and vaulted, in a similar manner to the nave, and in each bay of the apse there is a circular window. There are two side chapels opening out of the transepts. One is dedicated to the Virgin Mary and the other to the Sacred Heart. The high altar is of polished marble with Swedish grey panels, dove grey frames, and Silician arches and a Heworth Burn stone slab. The reredos has been executed similarly, having black and light coloured marble. The communion rail is of moulded Swedish green marble; the steps to the altar of green terrazzo; the whole of the flooring consists of "Granwood" patent blocks in basket pattern, and the roofs are covered with Roman interlocking tiles.

The general contractors for the building were Messrs. Henry Kelly, Ltd., of Newcastle. The whole of the incidental work has been executed by local contractors.

Messrs. Stienlet and Maxwell, of Newcastle, were the architects.

Entertainment Pavilion Competition, Exmouth.

The award of the assessor (Mr. C. Cowles Voysey, A.R.I.B.A.) in this competition is given under Competition News, page 544. We illustrate this week the first premiated design, by Mr. E. C. P. Allen, A.R.I.B.A.

Margate and District General Hospital.

This new hospital is to be built on an open site on the south side of St. Peter's-road, Margate. The present design is for 80 beds, with ample room for extension when the occasion arises. There will be medical, surgical and children's wards, and special departments for X-ray and ophthalmic cases, a section for out-patients, and special provision for paying patients—a much felt want. The principal interior arrangements of the hospital may be studied from the plans which we give this week. The hospital is estimated to cost over £50,000, of which sum £31,420 has been raised. Contributions to the fund will be welcomed by Capt. J. Irvine H. Friend, M.C., J.P., president of the hospital. Messrs. Reginald Elliott & Co., of Margate, are the contractors, and Messrs. Adams, Holden and Pearson, FF.R.I.B.A., are the architects.

Blickling Hall, Norfolk.

The drawings of Blickling Hall which we give this week, were made by Mr. Maurice B. Adams, F.R.I.B.A. (retired), at the time when certain work was being carried out there for Lady Lothian under his supervision. The plan of the building, given on page 557, was plotted by the late Robert Williams, who was clerk of works on the job. There is no other correct plan of the building as it now stands. One of the drawings given is now on view in the exhibition of architects' drawings and sketches at the R.I.B.A.

Forest Products Research Laboratory, Princes Risborough.

The primary purpose of this laboratory is to promote, in the national interest, the more economical use of timber by the timber-using industries of this country. In the exercise of this primary function the laboratory will be called upon both to furnish information on the adaptability for new purposes of timbers already on the market and to investigate the qualities and uses of new timbers. The laboratory is equipped to supply such a range of facilities. The accommodation provided in the buildings may be studied from the illustrations which we give this week.

The general contractors were Messrs. Webster and Cannon, Aylesbury, the clerk of works, Mr. Howard, and Mr. M. P. McLaren, M.B.E., M.I.M.E., the electrical and mechanical engineer.

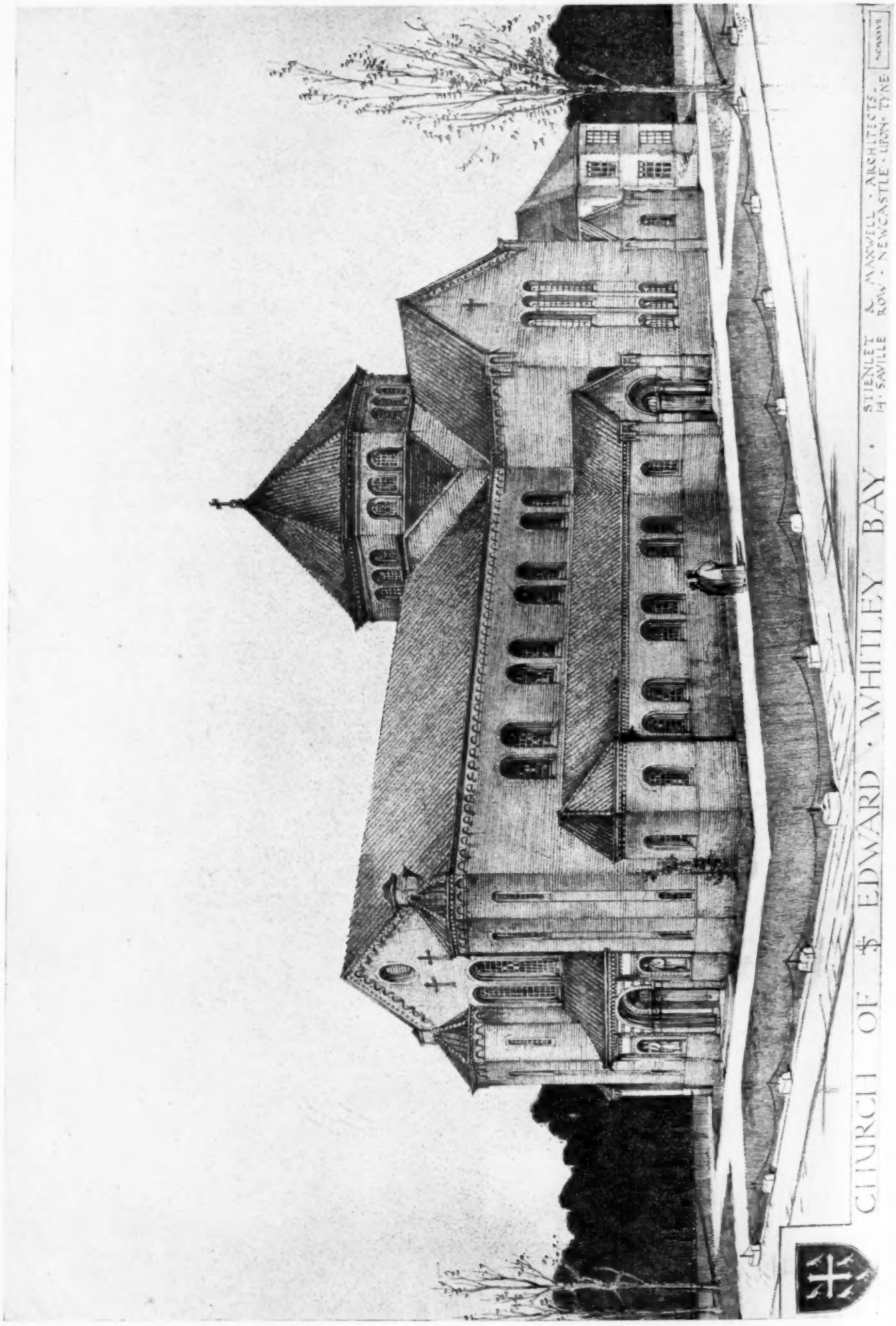
The following were sub-contractors:—Webster and Cannon, multi-coloured local sand-faced bricks; Excelsior Patent Stone Co., Northamptonshire, reconstructed stone; Wood and Co., Manchester, structural steel; W. H. Heywood and Co., patent glazing; Roberts Adlard and Co., slating; Val de Travers Asphalte Paving Co., asphalt; Concrete, Ltd., Leeds, hollow concrete beams; R. Gay and Co., paint; Wm. E. Farrer, Ltd., sewage disposal plant; Permanite, Ltd., roofing material to flats; Humphreys, Jackson and Ambler, Manchester, and Williams and Williams, Chester, steel sashes; A. Jones, Lock and Co., gearing to roof lights, etc.; White, Paisley, wood working machinery; Watkins, Leicester, pendulum saw boring machinery; Haigh, Oldham, circular saw; Glaholme, Tweedmouth, wood preservation plane; Denison, Buckton, hydraulic testing machinery; Morris, Loughborough, gantry and traveller to log pond; Deane and Beal, Ltd., heating and ventilation; Electric Installations, Ltd., lighting; Progressive Engineering Co., Leicester, dust removal plant; Dent and Hellyer and Carron Co., sanitary goods; McDowall Stevens, registers, stoves, etc.

Mr. Frederick A. Llewellyn (H.M. Office of Works) is the architect.

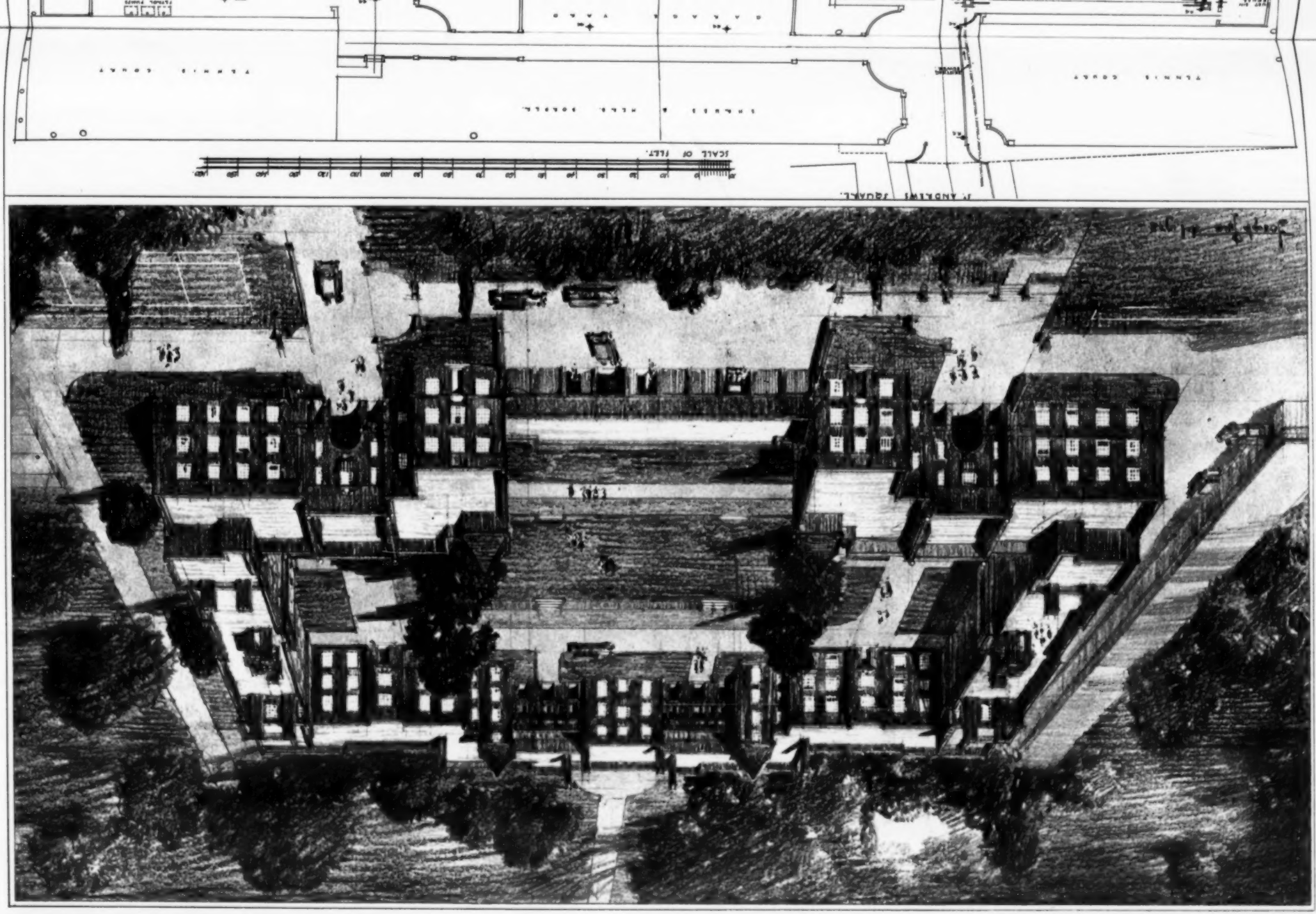
Lloyds Bank, Thorpe Bay.

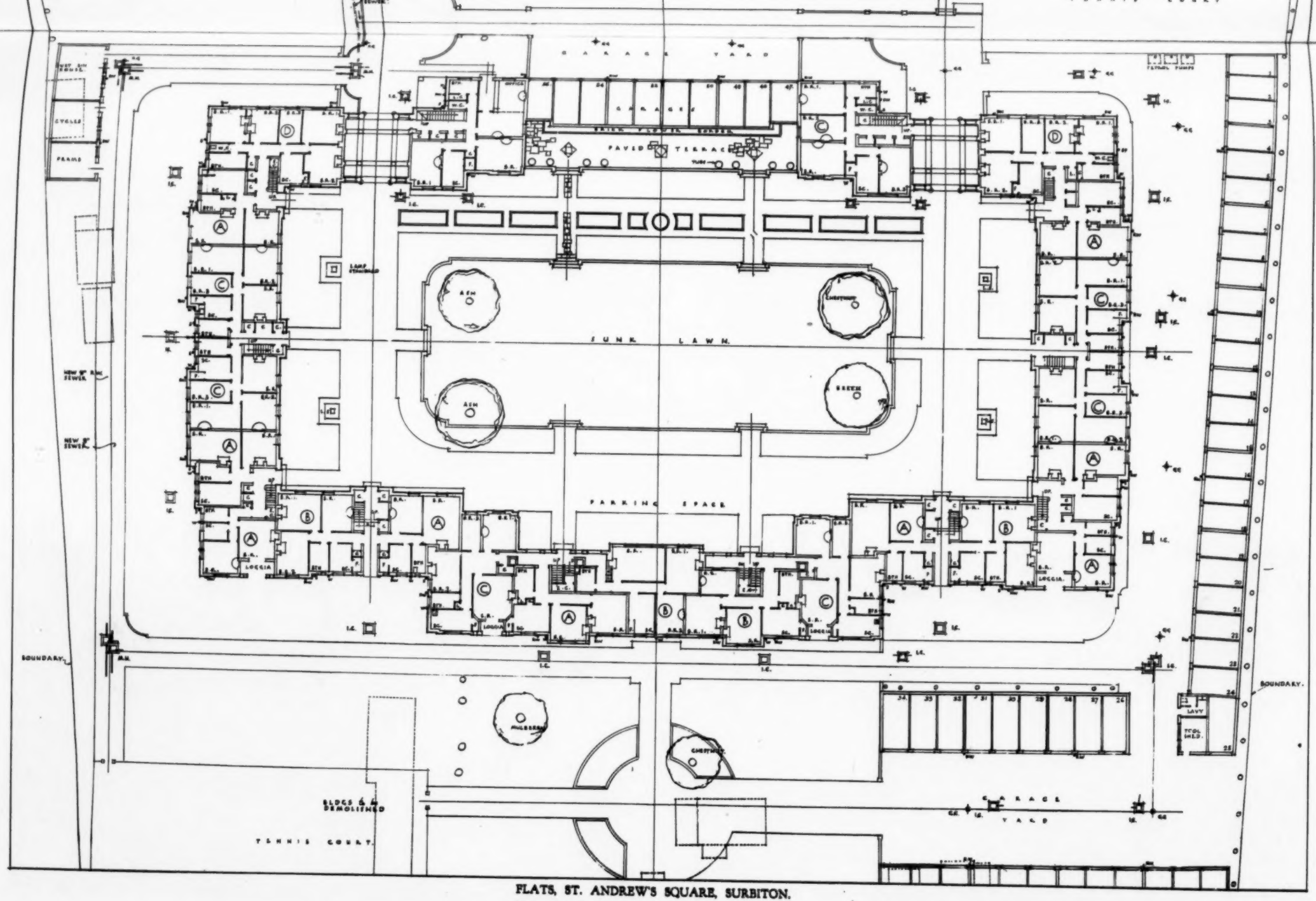
This building serves a double purpose, providing, in addition to banking accommodation, two self-contained flats on the upper floors. The Bath stonework of the front is of the "Copenacre Boxground" variety, which is noted for its strength and regularity of texture and freedom from "lists" and clay-holes. Mr. J. G. Gray, of Coventry, was the general contractor, and the following firms were sub-contractors:—Messrs. S. & E. Collier, Ltd., Reading, 2-in. multi-coloured facing bricks; the Yockney and Hartham Park Stone Co., Ltd., Corsham, stonework to front; the Aston Construction Co., Ltd., steelwork; Messrs. G. W. Lewis, Ltd., Nuneaton, roof tiles; the Watkin Heating Co., Westcliff, central heating; R. B. Emerson, Westcliff-on-Sea, electrical work; G. E. Wallis & Sons, Ltd., internal bank fittings.

Mr. George F. Grover, of Thorpe Bay, is the architect.



MESSRS. P. J. STIENLET AND J. C. MAXWELL, L. and F.R.I.B.A., Architects.

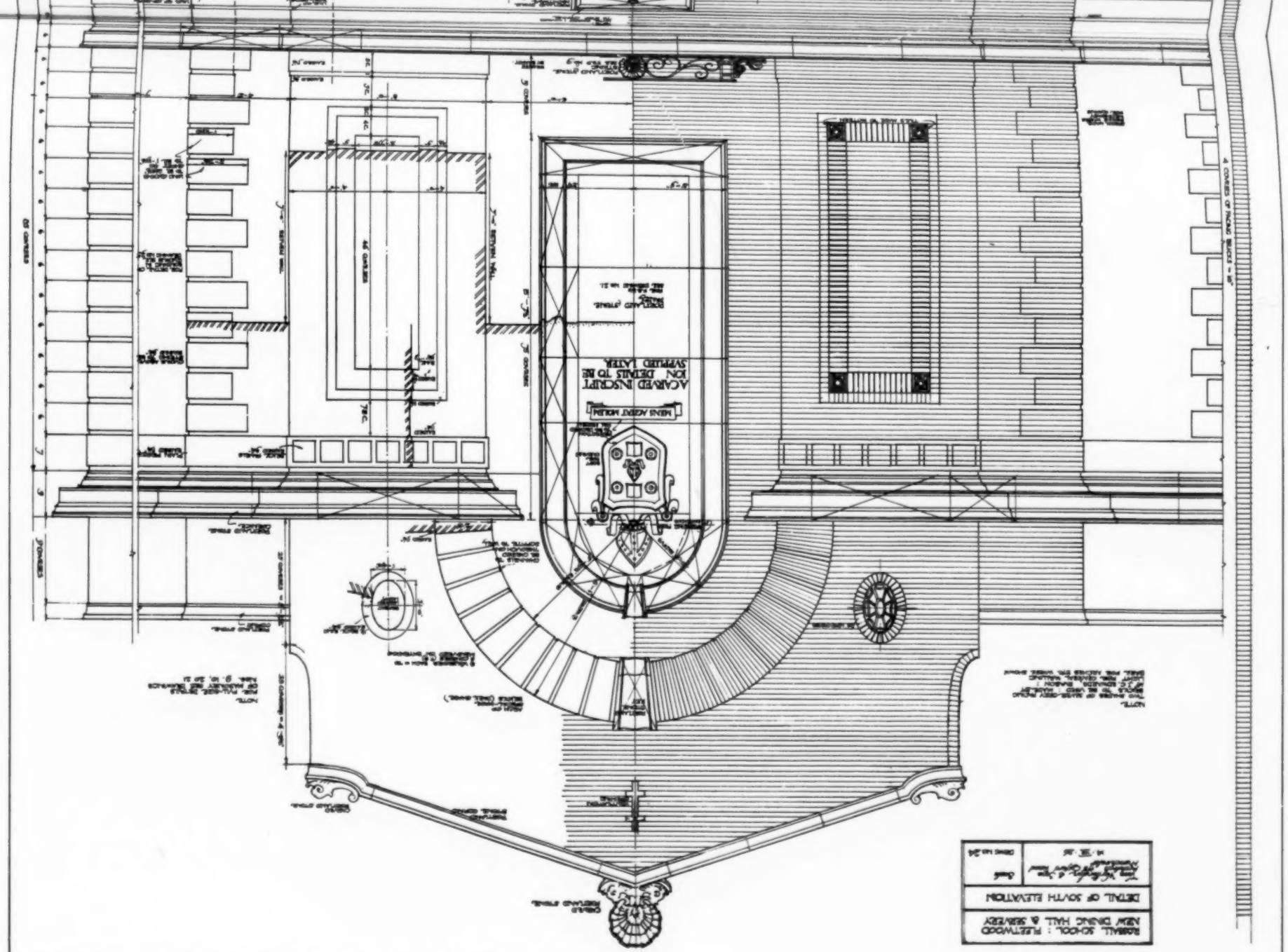

TENNIS COURT
TENNIS COURT
SCALE OF FEET.
ST ANDREWS SQUARE.

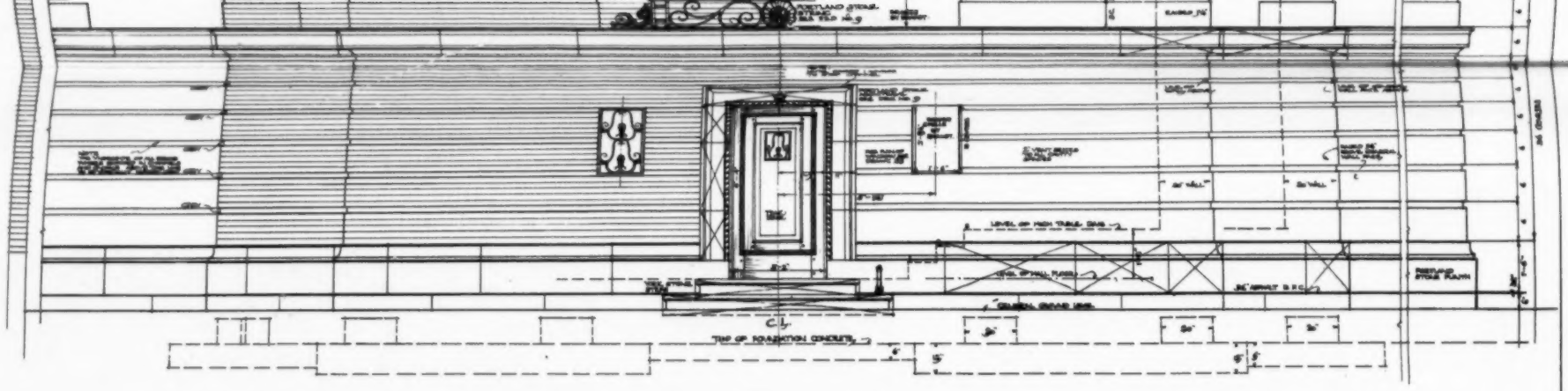


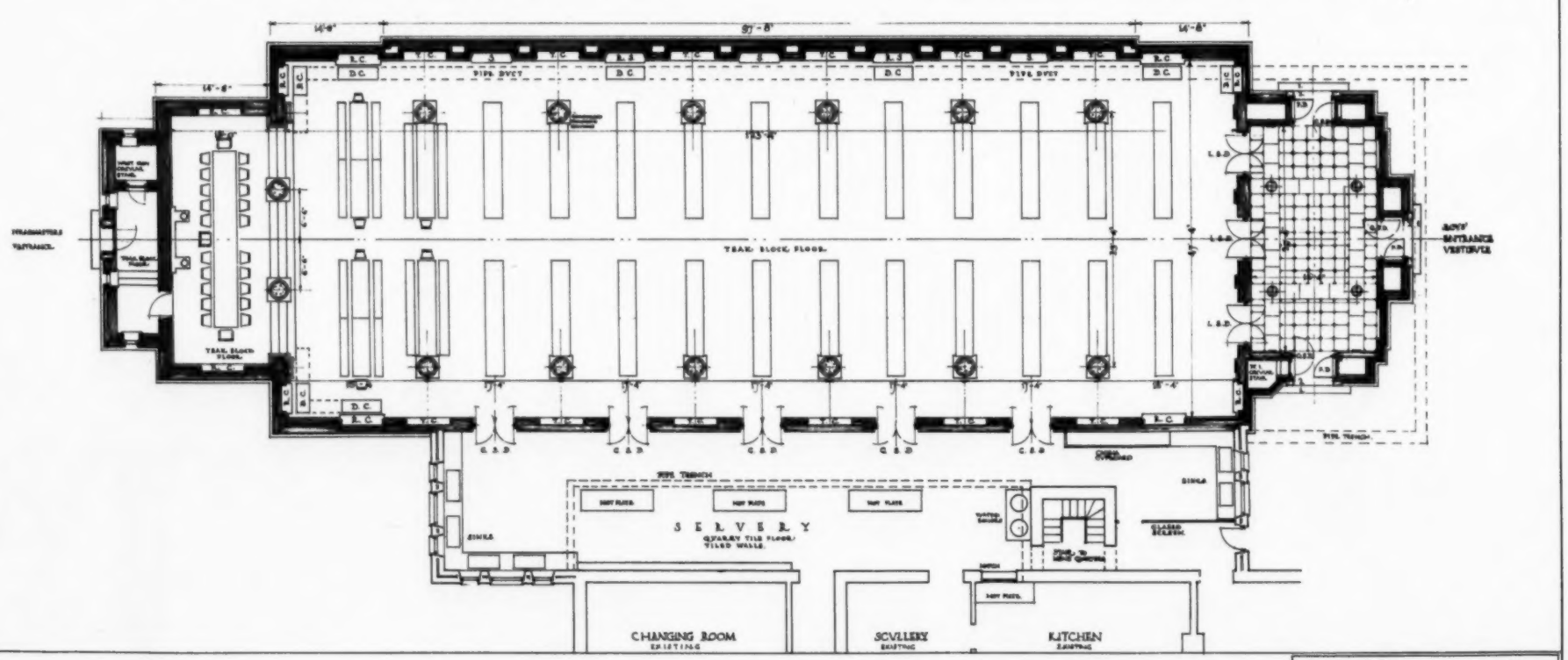
FLATS, ST. ANDREW'S SQUARE, SURBITON.

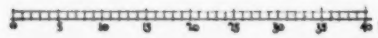
Mr. J. B. F. Cowper, F.R.I.B.A., Architect.

THE BUILDER, 6TH JUNE, 1874.









· SYMBOLS ·

S. HEAT BELOW WINDOW
R.S RADIATOR BELOW WINDOW
R.C RADIATOR ENCASED IN PANELLING
R. RADIATOR
T.C. TYCEL-COVERED
G.S.D. GLAZED SWING DOORS
L.S.D. LEATHER-COVERED SWING DOORS
F.D. FOLDING DOORS
D.C. ACCESS DUCTS TO HEATING PIPES

ROSSALL SCHOOL FLEETWOOD
NEW DINING HALL & SERVERY

GENERAL PLAN below CILL LEVEL of DINING HALL WINDOWS

SCALE:

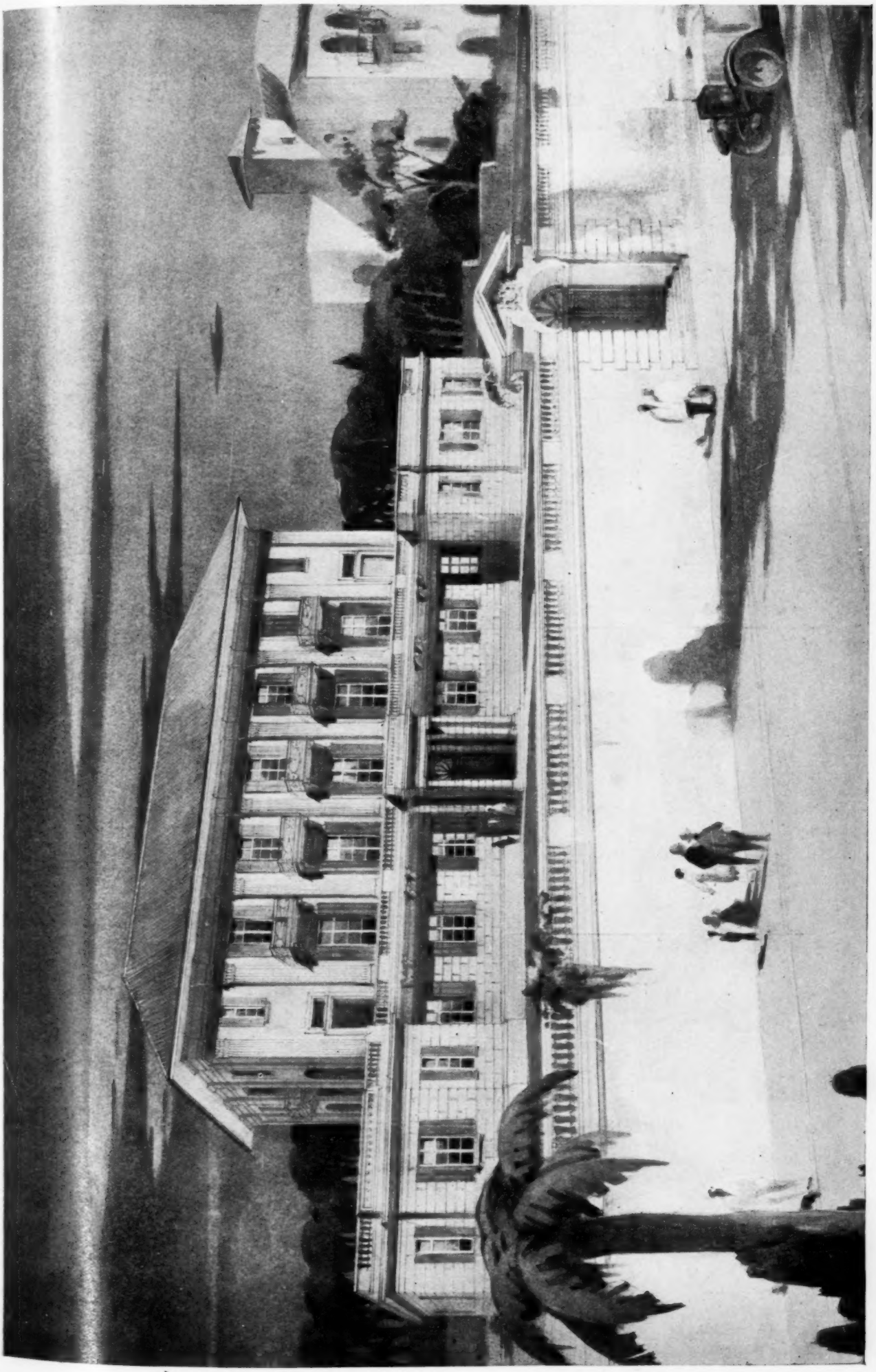
DATE. MARCH 1924

Thos Worthington & Sons. ARCHITECTS 175 OXFORD ROAD MANCHESTER.

DRAWING NUMBER. 2.

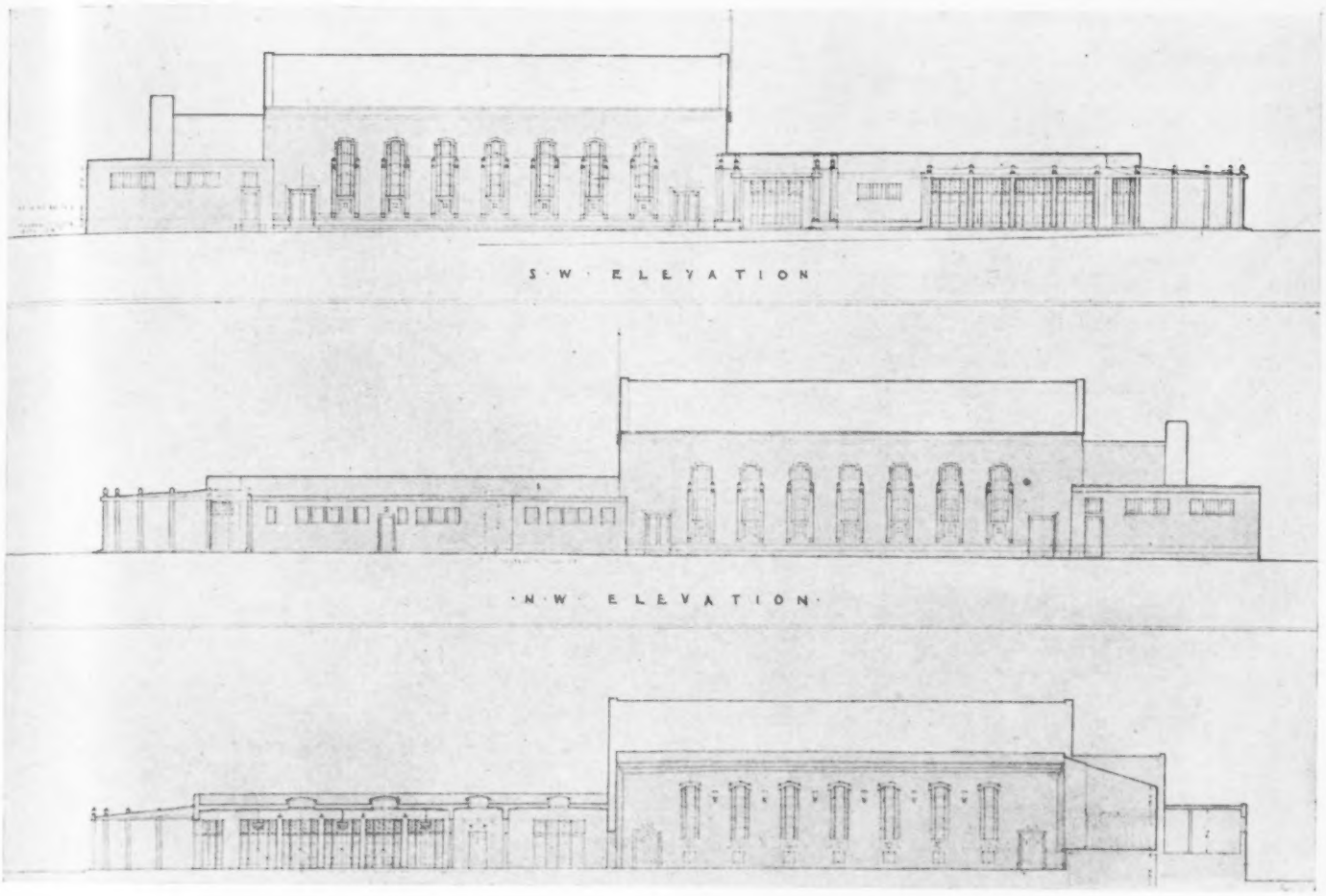
ROSSALL SCHOOL: NEW DINING HALL AND SERVERY.

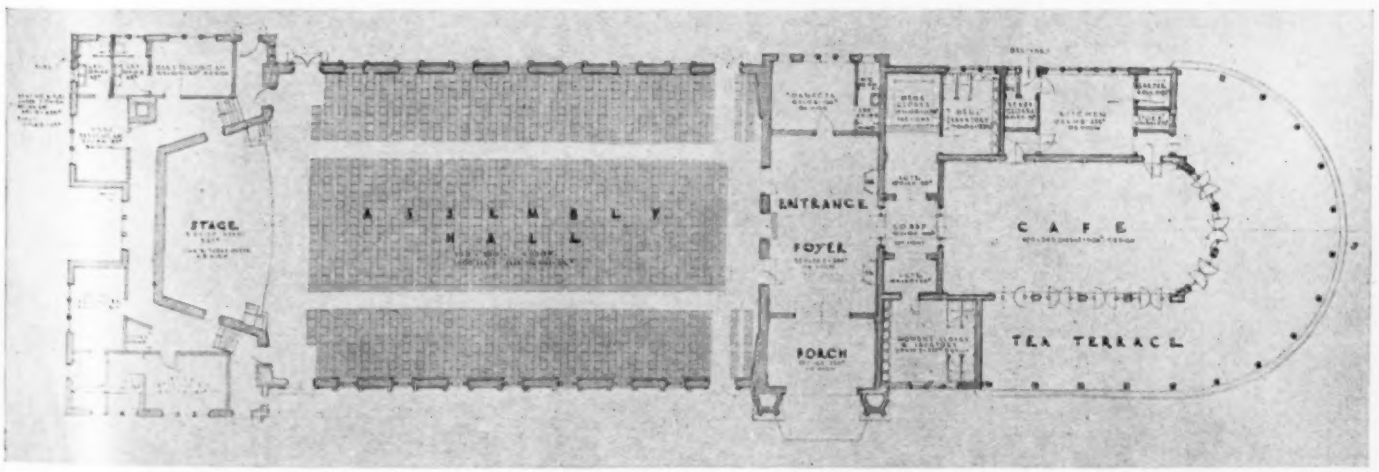
Messrs. Thomas Worthington & Sons, Architects.

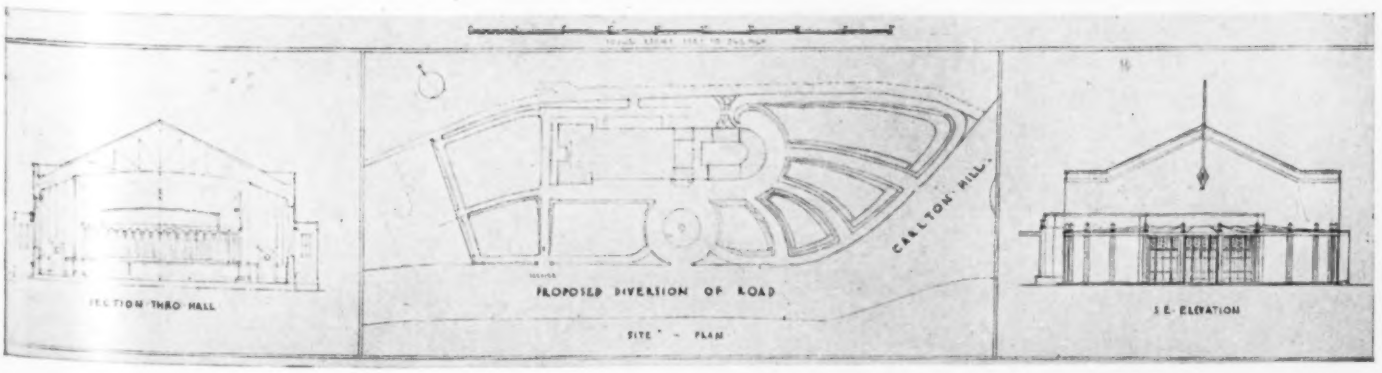


New Consulate-General, Alexandria.

Mr. J. G. West (H.M. Office of Works), Architect.

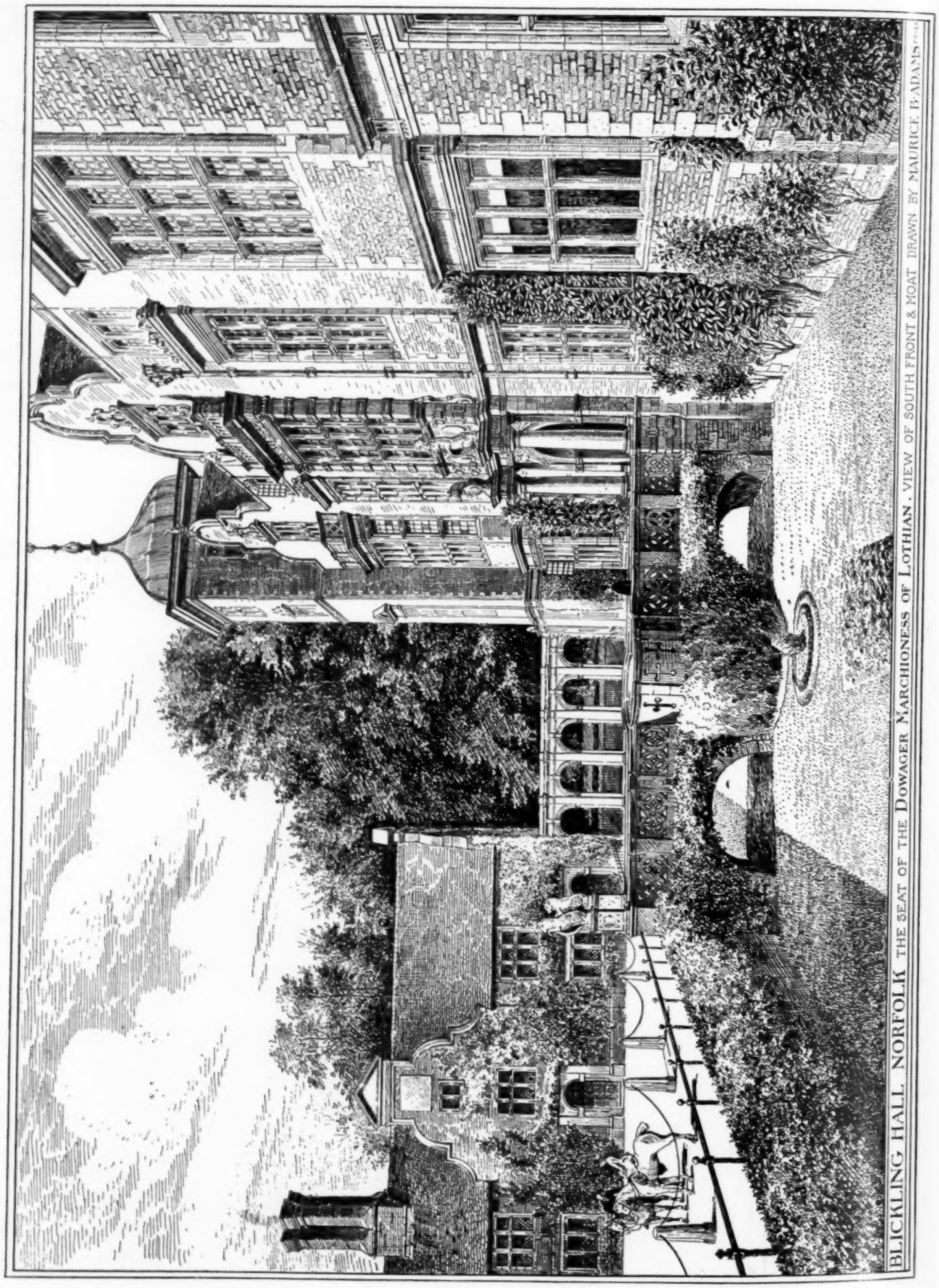




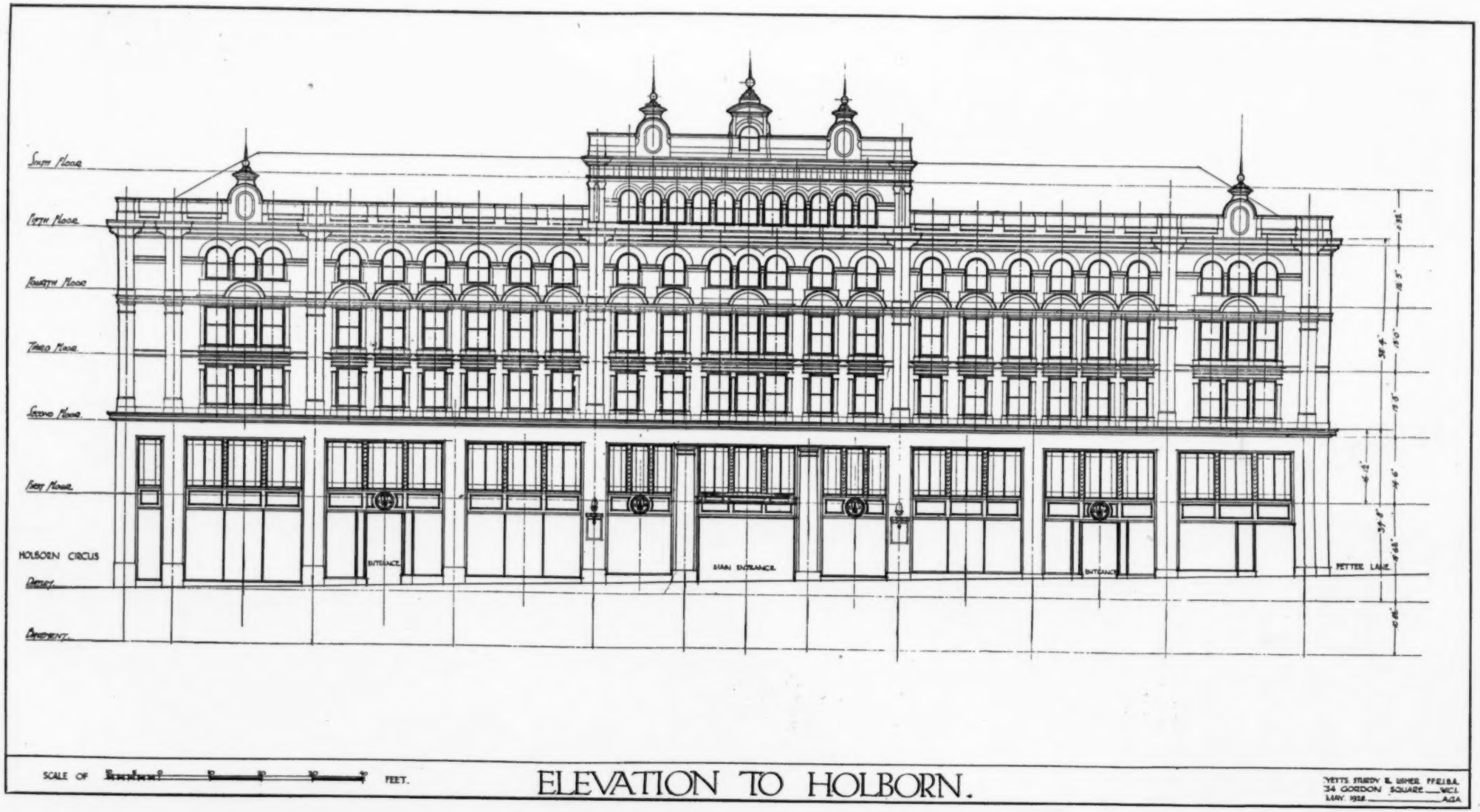


Exmouth Entertainment Pavilion Competition : First Premiated Design.

Mr. E. C. P. Allen, A.R.I.B.A., Architect.

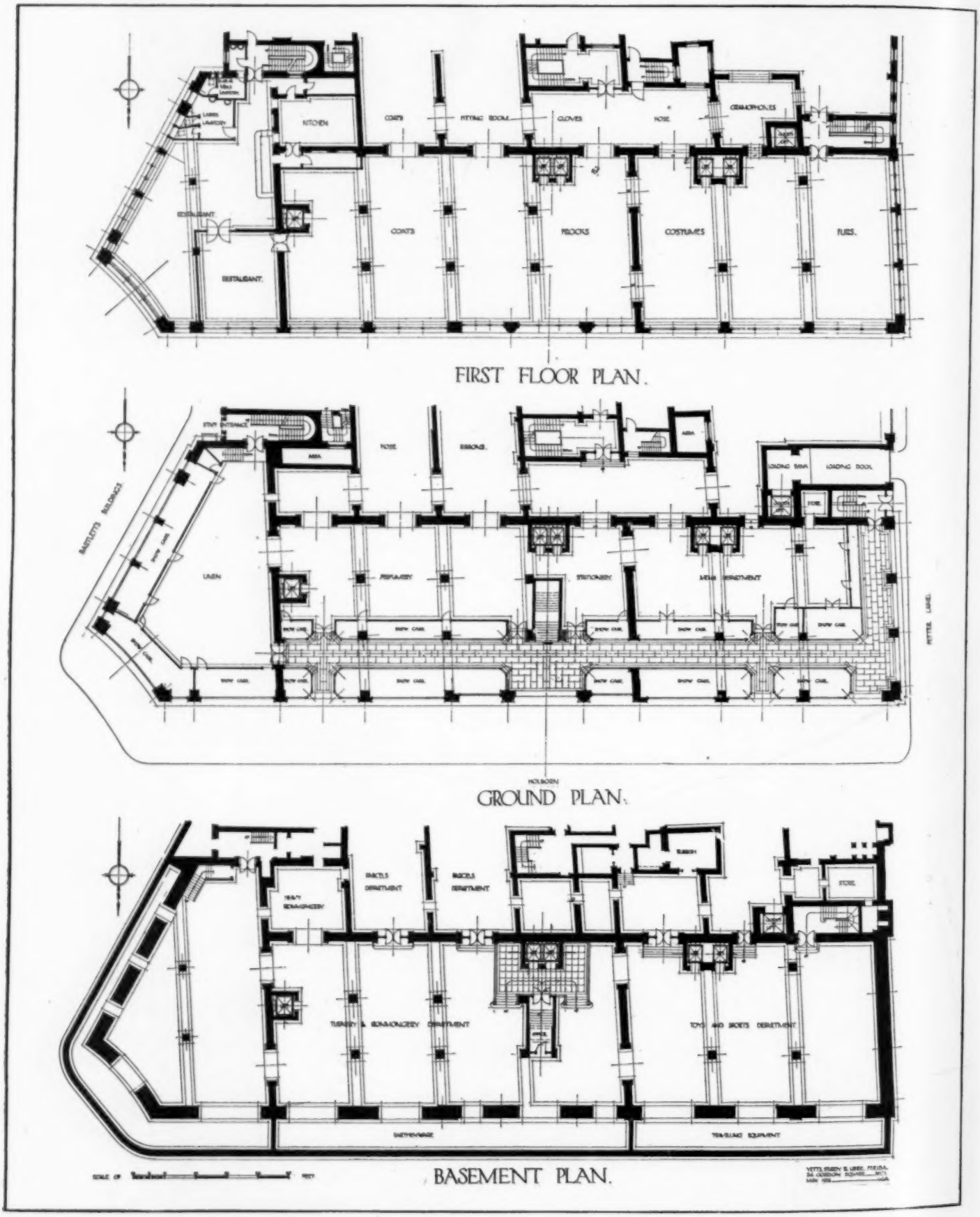


BLICKLING HALL, NORFOLK, THE SEAT OF THE DOWAGER MARCHIONESS OF LOTHIAN. VIEW OF SOUTH FRONT & MOAT. DRAWN BY MAURICE B. ADAMS



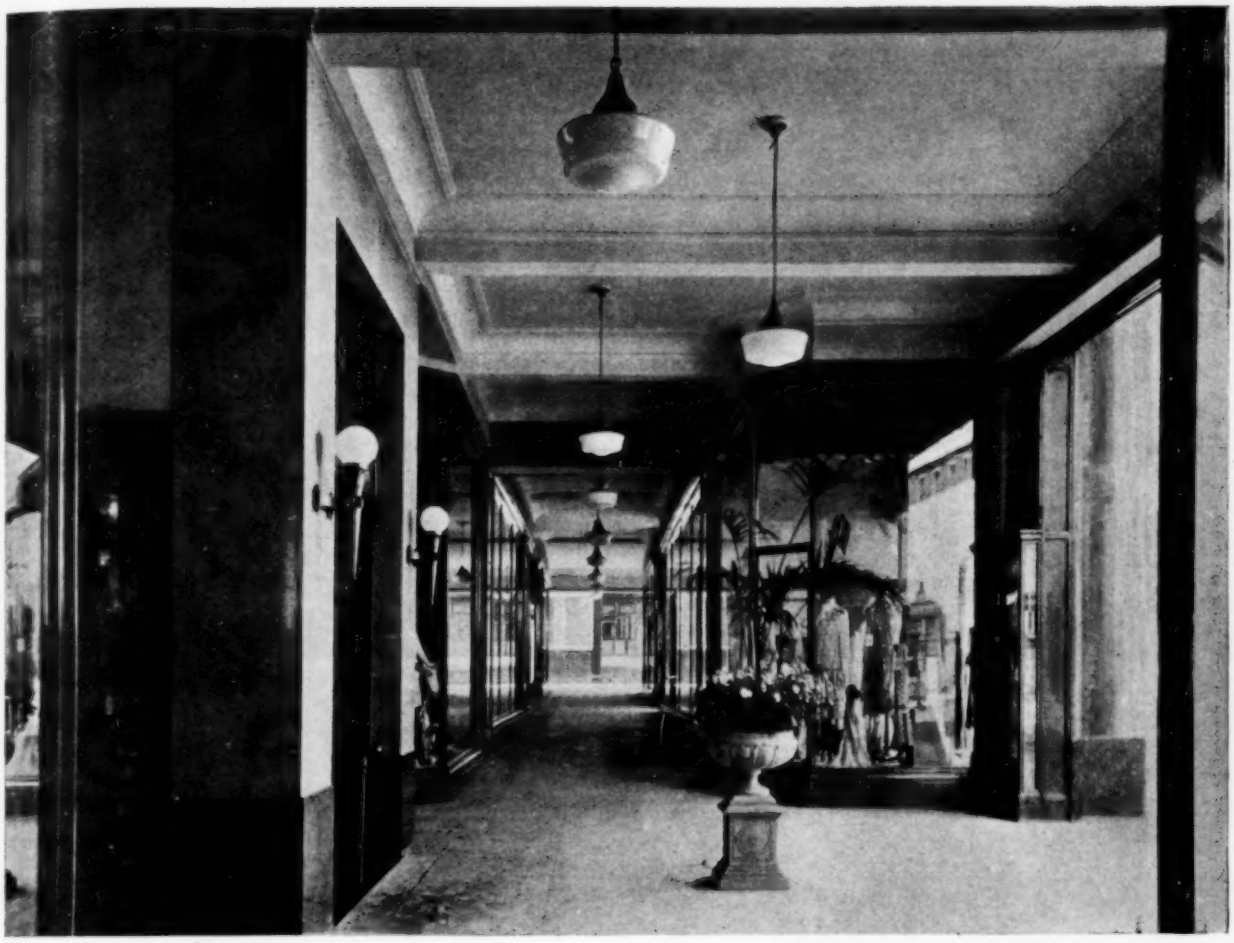
Remodelling of the Wallis Store, Holborn Circus.

MESSRS. ARTHUR F. USHER AND JOSEPH HILL, FF.R.I.B.A. (Messrs. Yetts, Sturdy and Usher), Architects.



Remodelling of the Wallis Store, Holborn Circus.

Messrs. Arthur F. Usher and Joseph Hill, FF.R.I.B.A., (Messrs. Yetts, Sturdy and Usher) Architects.



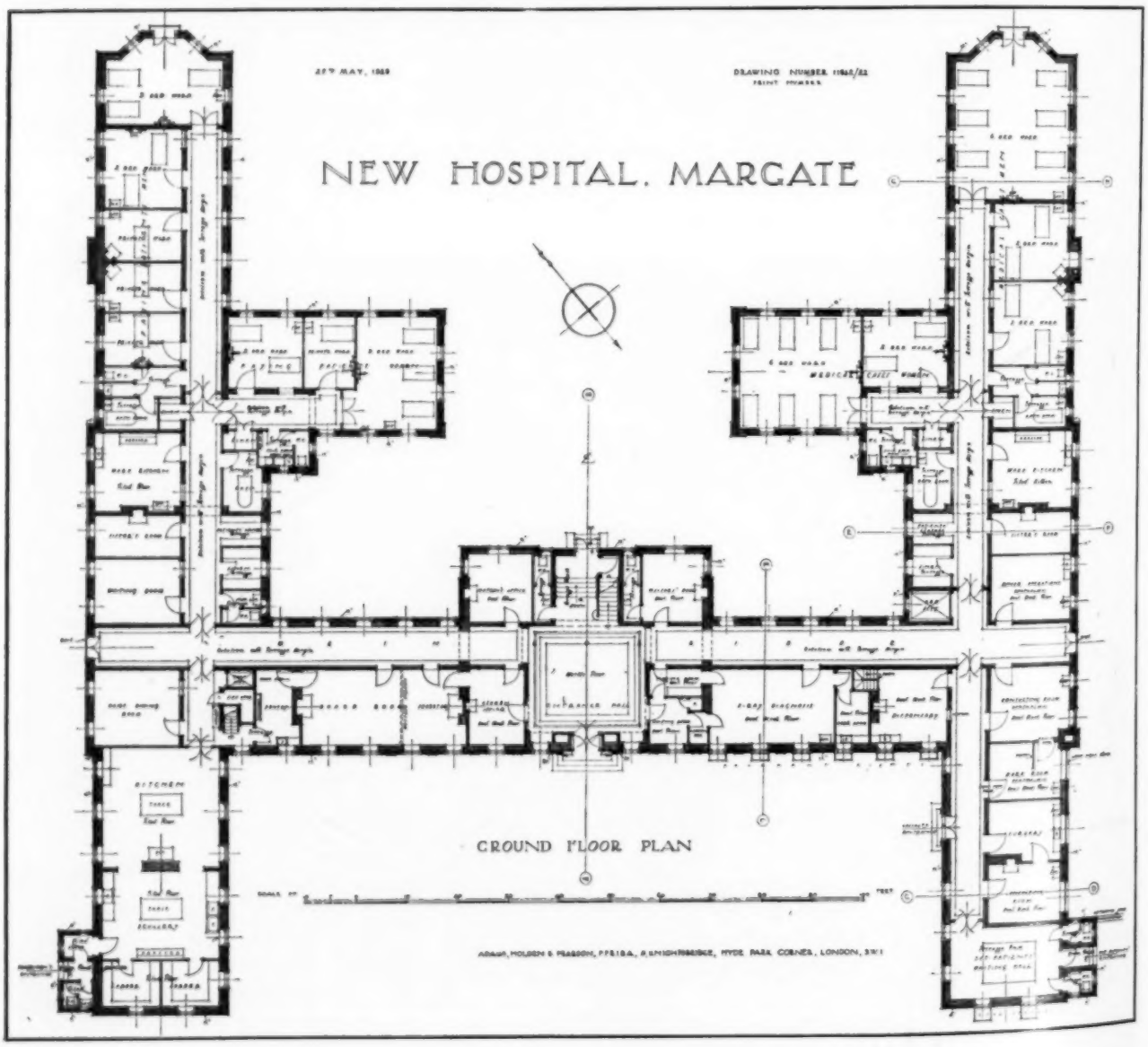
Interior of Arcade.

Main Entrance.

Remodelling of the Wallis Store, Holborn Circus.

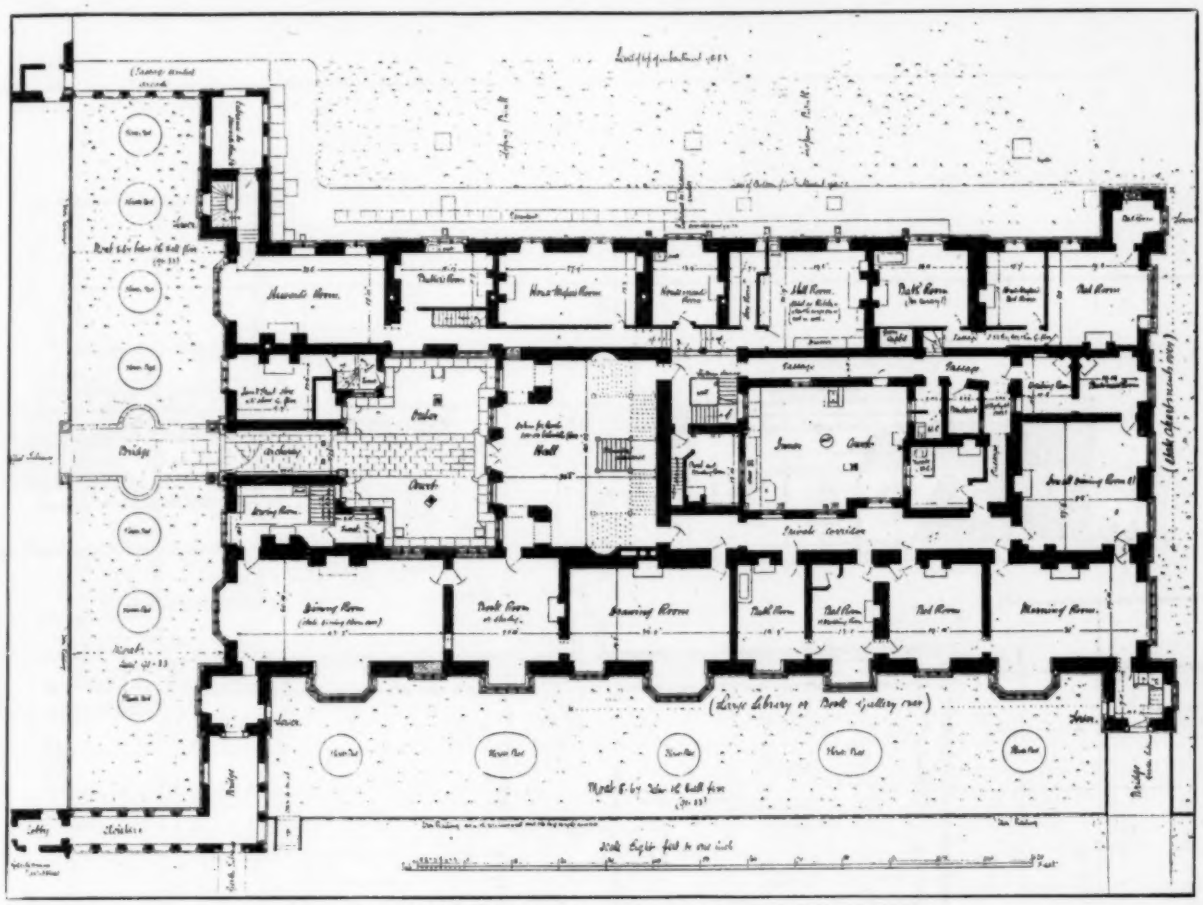
Messrs. Arthur F. Usher and Joseph Hill, FF.R.I.B.A. (Messrs. Yetts, Sturdy and Usher), Architects.

PERSPECTIVE VIEW.

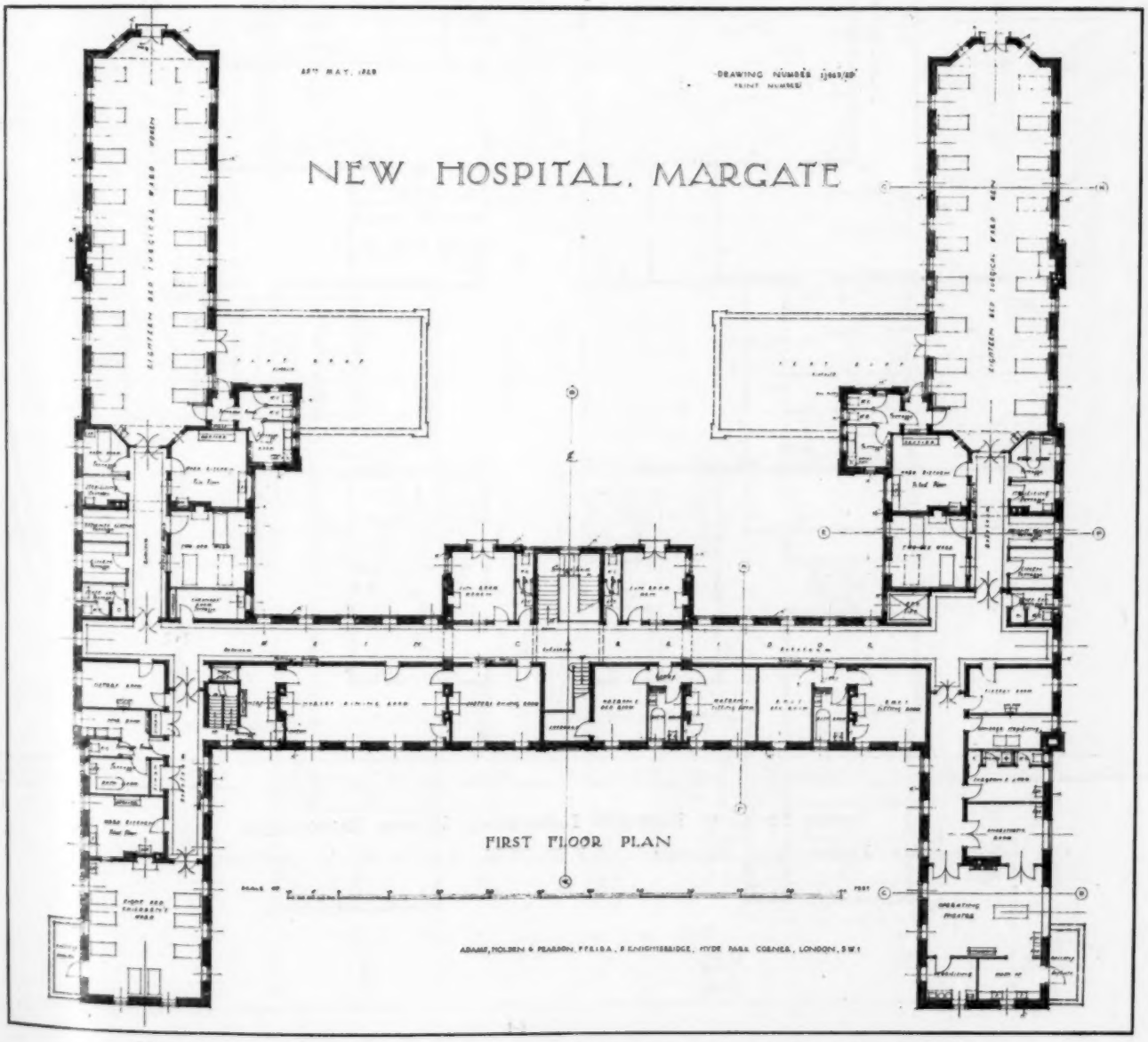


New Hospital, Margate.

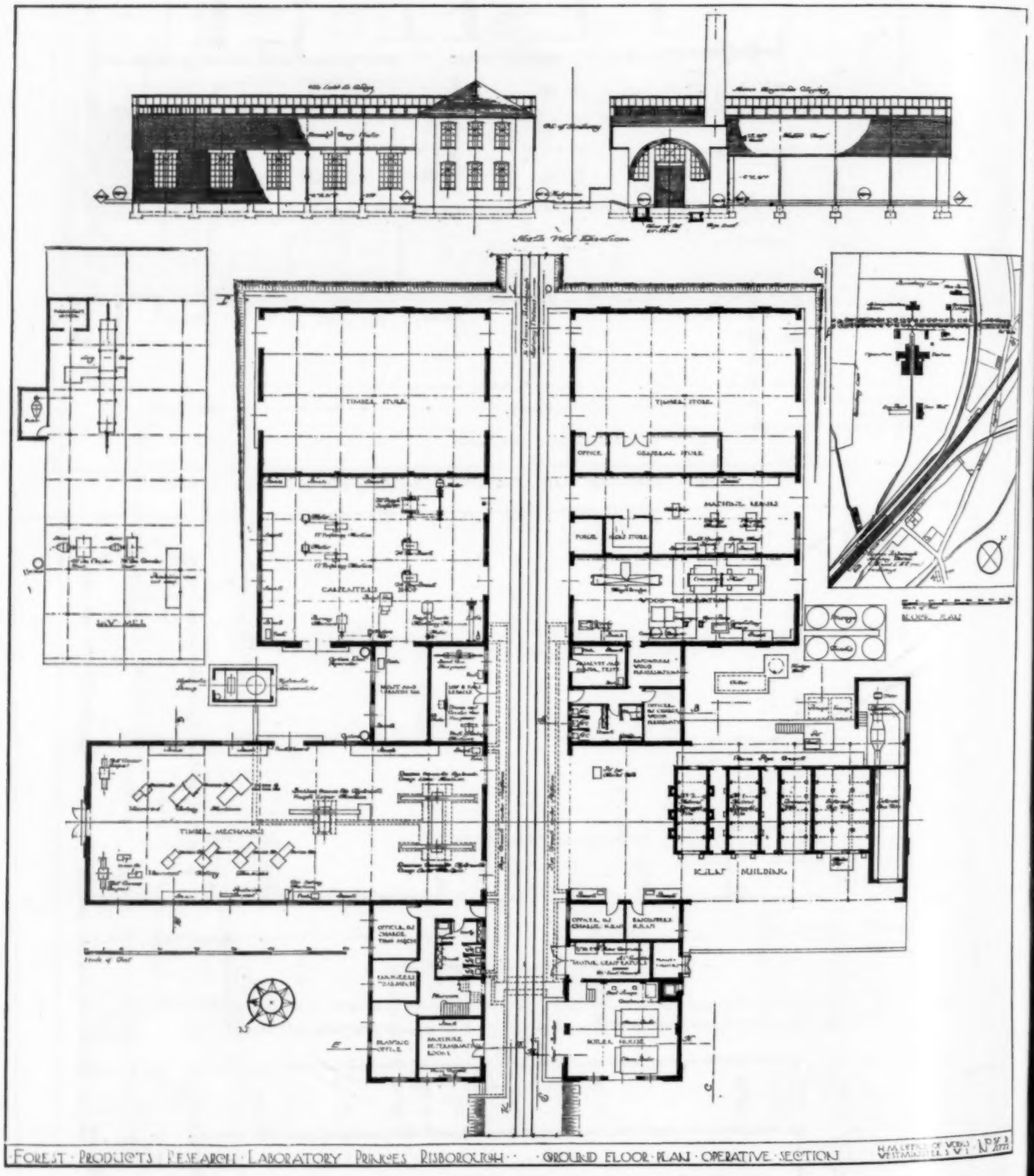
Messrs. Adams, Holden and Pearson, FF.R.I.B.A., Architects.



Plan of Blickling Hall, Norfolk. (*See pages* 540 *and* 552.)

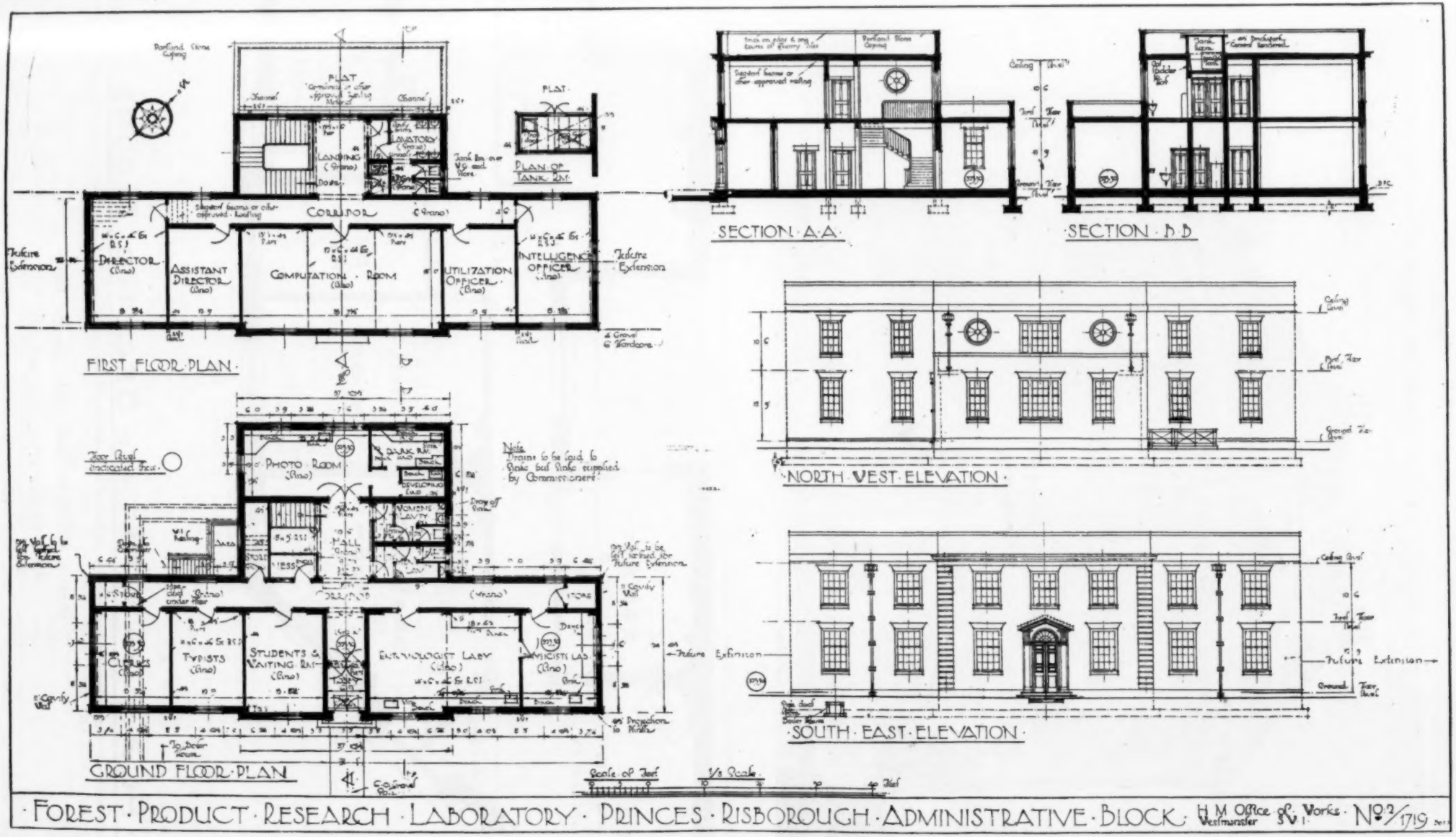


New Hospital, Margate. MESSRS. ADAMS, HOLDEN AND PEARSON, FF.R.I.B.A., Architects.


North West Elevation
TIMBER STORE
TIMBER STORE
OFFICE
GRADING STORE
MACHINE HOUSE
TIMBER MECHANICS
BOILER HOUSE
FOREST · PRODUCTS · RESEARCH · LABORATORY · PRINCES · RISBOROUGH · · · GROUND · FLOOR · PLAN · OPERATIVE · SECTION

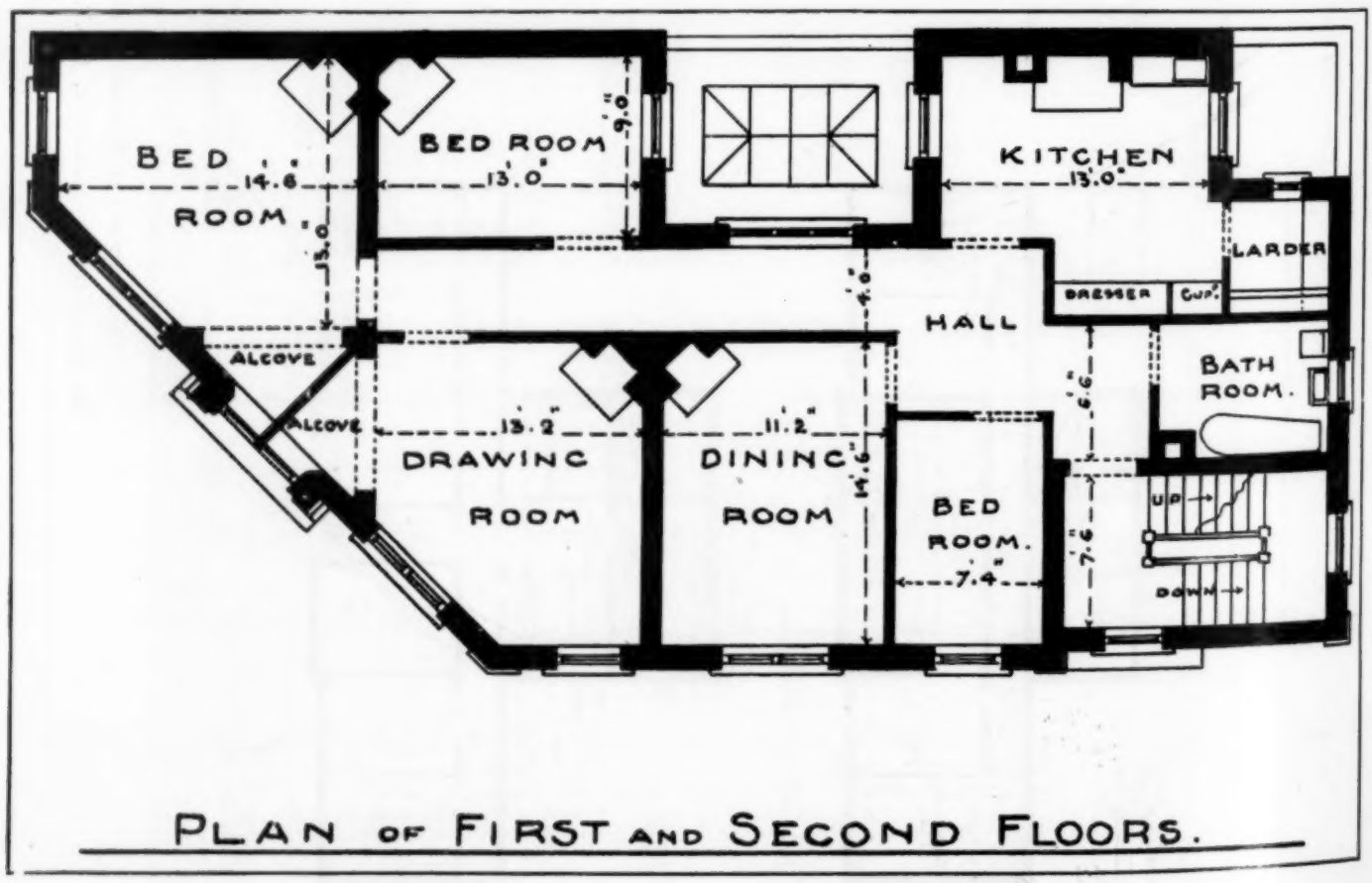
Forest Products Research Laboratory, Princes Risborough.

Mr. Frederick A. Llewellyn, O.B.E., (H.M. Office of Works' Architect.



Forest Products Research Laboratory, Princes Risborough.

MR. FREDERICK A. LLEWELLYN, O.B.E. (H.M. Office of Works), Architect.



PLAN OF FIRST AND SECOND FLOORS.

Branch of Lloyds Bank, Ltd., Thorpe Bay.

Mr. George F. Grover, Architect.

ARCHITECTURE, NATURE AND MAGIC

By W. R. LETHABY.

VIII.—LOCALISATION AND IMITATION.

THE WORLD'S CENTRE.

"Fragments of an old faith, according to which man originated on the mountain of all mountains by the source of all waters, and under the tree of all trees."

(Dr. W. F. Warren, 1885.)

It was a common claim among ancient peoples that some sacred site in their particular land was the true centre of the world. These centres of the world were often marked by a temple or other monument. Indeed, one purpose of a temple was to localise the sacred centre. Such a monument was the *Omphalos* at Delphi, a centre originally dedicated to the worship of the earth mother. A great mass of what may be known on this subject is gathered up in the learned German treatise *Omphalos*, by W. H. Roscher, 1913-15. (See also Cook's *Zeus*, II, p. 166; Miss Jane Harrison's *Themis*, p. 369; and a book of quite a different kind, W. F. Warren's *Paradise Found*, 1885.)

Sir Arthur Evans has recently shown that the monumental Omphalos was known in Crete and that the traditions at Delphi must have been taken over from that island. The actual Omphalos stone of Delphi was discovered in 1913. It was a block of limestone in the form of half an egg, formerly covered with stucco and pierced from top to bottom with a square hole in which was a knife-shaped wedge of iron "which presumably served to keep in place a wooden stem, now lost." On it, in archaic letters, probably of the seventh century, was the name of the earth goddess. The stone and post represented the earth centre and sky prop (Cook, *Zeus*, II, p. 166). It must have been truly interesting to pilgrims to have the middle point of the world pointed out in this exact way (Fig. 1).

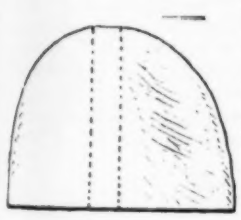


Fig. 1.

During the Middle Ages Jerusalem was the true topographical centre of the world to Christendom, as it had been to the Jews themselves. Fig. 2 is from a mediæval plan of the world. The Temple of the Jews was

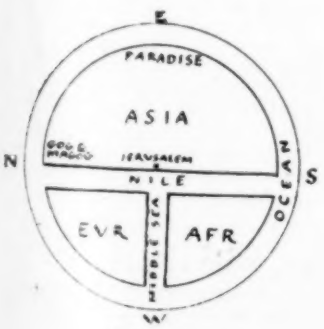


Fig. 2.

built on a rock, which, according to folk-story, was the centre of the earth and the lid-stone of the underworld. Some thirty years ago I suggested in the Quarterly Statement of the Palestine Exploration Society that there might be an allusion, by way of simile, to this common story of the time, in the words, "Upon this rock will I found my Church and the gates of Hell shall not prevail against it." "Among the Romans no city, or even camp, was *rite* established and founded without a sacred *Umbelicus*." (*Paradise Found*, p. 231).

If countries from Japan to Ireland could show the true centre of the world, where, we may ask, was the old British Omphalos? At once Stonehenge seems self-suggested as an answer. At a time when every ancient monument was related to the heavens and the earth there must have been some myths of explanation regarding this amazing structure. The Celts of Gaul had a sacred place in the land of the Cornutes; this district (the neighbourhood of Chartres) formed a "Gallic Omphalos—a sacred consecrated region" (*Académie des Inscriptions*, 1915). It is evident that Stonehenge was the great collective effort of a people, and it is clear from the number of burial barrows that the region was consecrated ground. The monument is in the middle of the Downs of South Britain and close to the crossing of the primitive roads east and west, north and south. If we set down what learned men living in South Britain about 500-1000 B.C. may have heard of the world they were living in, we might represent it something like Fig. 3. Stonehenge is a true circle, skilfully constructed, with a care for accuracy. Comparative

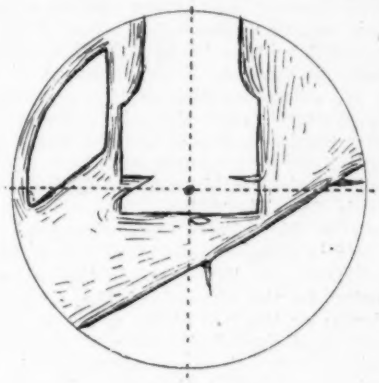


Fig. 3.

archæology suggests that Stonehenge was in a literal sense the religious centre of the country, where the movements of the heavens and the procession of the seasons would have been dramatically imitated. What is called the Cursus, close by the monument, is just what we might expect to be there.

The Tree of Heaven.

The lore about sacred trees which has been gathered is immense, and I am quite incompetent to do more than try to consider it from the view-point of historical architecture. Doubtless there are several types of sacred tree, the primitive over-branching world-structure, a more restricted sky axis-tree, as we say, pole, and sacred types of vegetation, trees of life and wealth.

Any particular local world centre was likely at the same time to have been a symbol or imitation of a supermundane paradise centre, where was the well of all waters by which grew the great axis tree of the heavens. "Whilst most readers are familiar with the Norse myth [of Yggdrasil], few are aware how ancient and universal an idea it represents. This same tree appears in the earliest Akkadian mythology. It stood at 'the Centre' or Pole of the earth, where is the holy house of the gods. . . . This was only another form of the Tat-pillar: under all its names the Egyptian Tree of Life is a true World-tree, whose trunk is coincident with the axis of the world; a tree in whose branches Bennu, the sun-bird, is seated," etc., etc. (*Paradise Found*).

For tree worship I must refer to Fergusson's old book on Indian cults, to Sir Arthur Evans's more recent *Mycenæan Tree and Pillar Cult*, and to the new work on the *Minoan Religion* by M. P. Nilsson, with its references to the latest studies of the subject. Representations of the sacred trees frequently show them as within enclosures or rising behind a gate-like erection called a "portal shrine" by Sir A. Evans. "If the construction is not a temple it can be understood as a sacred enclosure surrounding the tree or else as a free-standing construction protecting the tree and denoting its sacredness, comparable in some ways, for example, to the Japanese *torii*, or the columns joined by a piece of entablature which so frequently appear in Hellenistic wall paintings. . . . If our explanation is right we have rustic sanctuaries consisting of an enclosure with a gateway, or a free-standing portal with a sacred tree, and sometimes a baetal or a sacred column much like those that occur so frequently in the classical age" (Nilsson). On these later sacred trees and pillars within enclosures or associated with portals much is to be found in Dr. Cook's *Zeus*. In the section on "Diana Pillars" he says (II., p. 158): "We observe that side by side with these pillar shrines there persisted the more primitive tree-cult in which the living tree was enclosed by a gateway consisting of side-posts and lintel or by some later elaboration of the same. From our present position it seems legitimate to conjecture that this gateway or arch at first denoted the sky itself resting on the side supports." If this were so, indeed—and I must say, visionary as it may seem and misleading as such theories may be, that I am drawn by many analogies to think it is probable—then the enclosures must have been paradises entered by symbolical gates of heaven, on which something will be said later.

The tree of Paradise as represented by art had great influence in the formation of architectural types.

It seems to be agreed that the Tet or (dad) pillar, one of the commonest and therefore most potent Egyptian symbols, represented the axis tree (axle tree I might have written) of the heavens. In the British Museum Egyptian Guide it is described thus:—"This object symbolises the tree trunk in which Isis concealed the body of Osiris, and the four bars indicate the four branches of the great world tree and typify the four cardinal points. 'The setting up of the *Tet*' was a ceremony which was performed annually with great reverence. . . . It was worn as a symbol of 'stability.'" In the third dynasty it was already used architecturally, in the shrine-like carvings of small scale on the walls of the tomb chapels of King Zoser at Sakkara. (For the last word on the subject see Sir W. Flinders Petrie's "Osiris in the Tree and Pillar"; Ancient Egypt, June, 1928.)

In his recent volume, *The Early History of Assyria*, Mr. Sidney Smith tells how "at the New Year Festival in Assyria use was made of a bare tree-trunk, round which metal bands called 'yokes' were fastened and fillets were attached. This is clearly magic of the type called 'sympathetic'; the ritual is intended to promote that revival of Nature in the New Year which is the most intense desire of primitive man. . . . A very similar set of practices obtained in Syria and Palestine in connection with the bare pole called *asherah*. . . . There is reason for believing that this ritual importance of a tree or tree-trunk was a feature of the religion of all the people in the Eastern Mediterranean, for in Crete, in Asia Minor, and in Egypt similar ceremonies may be observed." Many representations of this tree or trees appear on seal stones and stone carvings and the oldest designs in inlaid work just brought back from Ur. Often the tree is guarded by two oxen or other creatures. Fig. 4 is from an Assyrian slab of later days.

In the British Museum is a carved Hittite relief from Carchemish, showing a very stiff tree—something between a palm and an Ionic column—guarded by two bulls. From a recent German book on Hittite art with photographic illustrations I have sketched Fig. 5. It represents the sacred tree carved on a relief with the sun directly above it. At the

** Correction.—Part VII, col. 4, line 13: "buried," not "burned."

same time it is clearly a palm tree and the prototype of the Ionic column. It is evident that this "order" of column was developed in Asia Minor in the tradition of the sacred Mesopotamian and Hittite palm-tree. The piled-up base of the Ionic column also suggests that it was originally a single and isolated unit. The strange-looking (to us) scrolled Persian capitals of Persepolis derive from the same genealogical tree. Around the throne-room of Nebuchadnezzar at Babylon was a splendid "decoration" of double-branched trees of the same type as Fig. 5, in glazed brickwork. These were doubtless sky-pillars. A cousin sacred tree to the Ionic was the Greek grave *stele* or pillar with its volute and palmette crown. Both were sacred evil-repelling forms. The Corinthian capital was the last efflorescence of the symbolic tree. Greek columns were sacred things: we in our stylo-mania (in both senses) set them up to advertise shops. How are the mighty fallen!

Fig. 4.

In antiquity there seems to have been a constant association of ideas between trees and lamp-stands.

"Among the treasures presented to the Palatine temple at Rome by Marcellus was a magnificent bronze candelabra in the form of a tree from the branches of which hung lamps. Pliny relates of it that it had been taken at the capture of Thebes by Alexander the Great and dedicated in the temple of Cyme. We need have no doubt that it was a sacred tree, regarded as luciferous, hung with lights, calling to mind the Teutonic Christmas tree and the sacred cypress which was the Persian symbol of fire, but still more that conventionalised sacred tree known to us as the seven-branched candlestick of the Temple, which figures on the Arch of Titus" (St. Clair Baddeley).

Fig. 5.

In his recent book, *Art and the Reformation*, Dr. G. G. Coulton has an Appendix on *Architecture and Natural Scenery*, in which he cites German works on architecture in mediæval romances. A poet, writing about 1270, describes how King Titurel built a temple for the Holy Grail. "It is noteworthy that so many of his imaginations turn towards the direct imitation of nature. . . . This temple is designed in many details to transport us straight to the forest or the seashore. . . . In the choir rise great arches on pillars of bronze; from each capital there grows a vine which climbs to the crown of the arch, intertwining with its sister-vine from the neighbouring pillar. 'Beneath it was set with marvellous flowers with roses sprouting white on trees and twigs; white lilies again, with their green leaves; there could the gazer see the counterfeit colours of all precious flowers, the blossom of all noble herbs trembling there in beauty all in a thicket of gold. The vines were green enamelled for gladdening of men's eyes so that the walls were almost draped in emerald. When any breeze stirred, then men heard them tinkle gently in sweet harmony as though falcons should hover in a flock their golden bells ringing together. Over these vines hung many a cloud of Angels as though fresh from Paradise, and when the branches began their melody, the angels moved like living souls.' With the organ-loft was wrought 'a tree of red gold whereon there sat a throng of fowls that men praise for their sweetest strains and sang each after his own song. One sang high and another low as the keys moved, well knew the organ-master the key that moved each to sing. Angels stood on the topmost branches each with a golden horn; mighty was the blast they blew.'"

Dr. Coulton compares this marvellous work of imaginative art to examples of artificial trees musical with singing birds which are recorded to have existed. "The Greek Emperor Theophilus (829-842) ordered two great golden organs in which the sounds come through birds; one of his successors, Constantine (911-959), had another similar golden organ-tree with birds" (p. 584).

Such trees seem to have been a part of the furniture of the palaces of great Oriental monarchs, as was mentioned in a former chapter. A section of the *Mansara* is devoted to describing how such a tree "granting all wishes" should be made. "The number of branches as well as their size varies according to the purpose of the throne for which the tree is meant."

Many years ago I was drawn by study of our wonderful early Saxon crosses at Ruthwell and Bewcastle to see that they embodied symbolism of the Tree of Heaven, and I was pleased recently to find that Dr. Cook has come to the same conclusion in regard to the Gosforth Cross. Sir Arthur Evans, again, in an illuminating account of the "Tree of the World," writes: "The Ash of Yggdrasil in turn influenced mediæval accounts of the Cross. . . . The branches of this greatest of all trees stretch over the whole world and shoot upwards to the sky. The eagle and squirrel sit on its branches, and its roots are gnawed by the loathly serpent Nidhögger" (*Hellenic Journal*, 1925).

Recently Mr. Peers has described, in *Archæologia*, the fragments of a wonderful early Saxon cross that stood in the centre of the entry to the chancel of the church at Reculvers; on the face of the cross-head were five circles slightly hollowed and with holes at their centres; these are unexplained, but I would suggest that they were for candle-holders and that the cross was a tree of light. The great seven-branched candlesticks of later churches stood in similar positions and embodied, however unconsciously, analogous symbolism. Great art was a sacred tree having very deep roots. (For mythical trees generally, see Richard Folkand, *Plant Lore*, 1884, and Mr. Donald Mackenzie's *Migration of Symbols*, and *Myths of America*.)

Sky Ceilings.

A desire to build a world-house seems to be a common symptom of megalomania. A friend of mine met an eccentric country clergyman who told him he wanted to build an immense hall with tables for all the people: trains bringing them would run in at the sides, and it would be lighted by a great lamp like the sun. Beckford, of "Vathek," indulged a grandiose dream of living alone beneath the dome of St. Peter's enclosed in an artificial globe. "Lanterns of all forms and sizes would remind us of China, and depending from the roof of the Palace, bring before us that of the Emperor Ki, which was twice as large as St. Peter's: for his majesty, being tired of the sun, would have a new firmament of his own creation and an artificial day. . . . I should like to immure myself after his example, forget the divisions of time, have a moon at command, and a theatrical sun to rise and set at pleasure."

The Egyptian practice from early times of painting the ceilings of pyramid chambers and temples like the firmament has been mentioned. Maspero describes the passage of the Pyramid of Onnas opened by him as sprinkled with stars. Even the coffin had to have its sky. There is an early example in the British Museum from Thebes, to which a date *c.* 2600 is assigned (Fig. 6). As is well known, the traditional "decoration" of the coffers of Greek temple ceilings were stars—one in each panel. Some examples are figured in Pennythorne's *Geometry of Architecture*, 1878. "When Propertius describes the temple of Zeus at Olympia as 'imitating the sky,' he is in all probability alluding to the coffered ceiling with gilt stars on a blue ground—a device common to Greek with Egyptian art" (Dr. A. B. Cook, *Zeus*).

"The same conception of the pillared sky found ritual expression in the great festival tent erected by Ion at Delphi. That this was

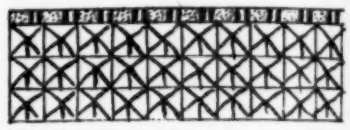


Fig. 6 (part only).

an imitation of the sky is clear, not only from the fact that it was made big enough to hold the entire populace, but also from the cosmic decoration of the roof" (*Zeus*, II, p. 178).

Throughout the Middle Ages the tradition was continued of sprinkling ceilings and vaults with stars. The vaults of churches were frequently painted as heavens, with the Majesty, the four watching creatures and the golden candlesticks. An excellent Norman example is in the little church of Kempley, Gloucestershire. Here the interspaces are filled with sun, moon and stars. A beautiful variant of this treatment is the vault of the Chapel of the Guardian Angels in Winchester Cathedral, where angels look through painted circles watching the world below. I have a

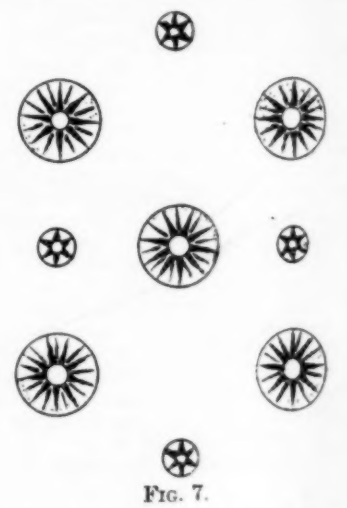


Fig. 7.

sketch from a drawing, dated 1864, of the vault of the Lady Chapel in the crypt of Canterbury Cathedral. On a deep blue ground were gilded circles, large and small, their centres being smaller circles inlaid in *glass*; on the gold, outside the glittering centres, rays were painted (Fig. 7).

(To be continued.)

New Road Works at Leeds.

Britain's pressing burden of unemployment has not been altogether an unmixed evil. In order to cope with the problem and to provide work many local authorities have started road works that will have far-reaching effects upon the district. For example, the city of Leeds in Yorkshire, since the war, has opened out a centre and widened several of the main streets. Much of this work, including 10 miles of new ring roads, 12 miles of other new roads, and 16 miles of widening streets, has been carried out in order to relieve unemployment. The cost of this has been £1,306,417, but Leeds has now the advantage of new streets that are capable of carrying heavy motor traffic and new buildings that have changed the whole appearance of the centre of the city. The work has added considerably to the value of the central area of Leeds.

THE ARCHITECTURE CLUB.

Tall Buildings.

THE opening dinner of the Architecture Club's season was held on September 27th at Grosvenor House, W., when a spirited discussion on "Tall Buildings" took place under the chairmanship of the President, Sir Lawrence Weaver. Among those present were Sir Herbert Baker, A.R.A., Miss Edith Shackleton, Miss Nora Heald, Mr. and Mrs. H. V. Lanchester, Professor R. Anning Bell, Messrs. Darcy Braddell, H. T. Buckland, M. Chesterton, E. G. Culpin, Patrick Cutbush, A. J. Davis, Trystan Edwards, J. Emberton, John Gloag, H. Austen Hall, W. Kaula, Ian MacAlister, Howard Robertson, Evelyn Simmons, H. W. Wills, F. R. Yerbury, H. P. Cart de Lafontaine, and the hon. secretary, J. H. Elder-Duncan.

Sir Lawrence Weaver, in initiating the discussion on tall buildings, with particular reference to London, said that, without taking sides on the matter, he would quote God's charge to Solomon after the Temple had been built: "And at this House, which is high, everyone that passeth by it shall be astonished and shall hiss, and they shall say, 'Why hath the Lord done thus unto this land and to this House'?"

Mr. Oswald Milne, called upon by the President to open the discussion, said that he was an unashamed advocate of higher buildings in London. Times were changing, and ideas with them. He could remember a debate at the R.I.B.A. a few years previously on the same subject of tall buildings, in which he and the late Mr. Delissa Joseph were protagonists for the tall buildings. When it came to a vote Mr. Joseph and he were on one side; the rest of the assembly on the other! But to-day architects more and more were becoming converted to the idea of the higher building. What was required was the bringing up to date of the London Building Act. Opponents of this movement always put forward two reasons against. Was London to look like New York? Was what sun there was to be taken away? With regard to the first objection, said the speaker, we certainly did not want London like New York, but we had 80 ft. and two floors in the roof already, besides sub-basements. Such buildings made streets into canyons. What was wanted was a Building Act which allowed each site to be treated on its merits. If the 80-ft. building line was to become general, London would become an even 80-ft. level, which, he thought, would be a very dull thing. A reasonable law which allowed varied heights was advisable. Here and there one could have a tower, as might have been on the Savoy Hotel on the Embankment. In such a case no light would be cut off. Such an Act would be a great advantage also in encouraging people to buy big sites on which they could put towers, thus getting more light and air for the workers in the building. The root fault of the 80-ft. building was that it was neither high nor low.

Mr. R. Holland-Martin agreed that the 80-ft. building line was going to prove a very bad thing. One would get a sameness of horizon that would tend to monotony. Speaking of the building work being carried on in the City, the speaker said that one great fault was that buildings were going up on too small bases. The City with its narrow streets was not intended for big erections, and yet if one owner rebuilt his premises those next door were forced to follow suit to avoid having their buildings collapse. From the architect's point of view it was a great problem to put up a fine building on a narrow site. Replanning of the City was really necessary. With larger buildings one should have wider streets.

Sir Herbert Baker was of the opinion that the height of the building should be fixed by the width of the street.

Mr. Donald H. Hope said that he had seen the development of tall buildings in New York. He agreed with Mr. Milne that the problem of London's development had its solution in the drafting of new building laws. Anyone who had seen those high buildings along the New York water-front—especially the Telephone Building—could imagine their effect on the Thames' banks. Fresh zoning was required in London, and if such a plan were adopted it would not only produce better business value, but would also give English architects a wonderful opportunity to build a better city than was at present possible under the London Building Act.

Mr. Howard Robertson said that the danger in altering zoning plans was that one would get occasional high buildings, but an 80-ft. building line would be general. Traffic problems and traffic congestion would grow even worse. In the Telephone Building in New York—of 6,000 capacity—the scene when the workers came out was worse than on Cup-tie day. If one had high buildings, one had to work to schedule times in the offices. The speaker quoted from a discussion that had been going on in the New York Press on tall buildings. Mr. Harvey W. Corbett (architect of Bush House, Aldwych) had laid it down that commerce and industry, to be a success, had to be centralised. That meant tall buildings, but it had the effect of keeping people off the streets. Automobile traffic was the trouble there, but conditions were not so vexed in America as in London, a state of affairs which he put down to the comparative fewness of buses in the New York streets. Opposing Mr. Corbett, he said, was a Mr. Curran, of the City Club, who maintained that tall buildings caused the trouble. They helped in no way to solve crush problems, as in any case the greater part of business was carried on by telephone. Let industry be decentralised and congestion would be avoided. The practical man was Thomas Adams, an Englishman, who was in charge of New York regional planning. He proposed varying heights for various street-widths, and also had formulated the theory that the building owner should cede to the public part of his property—not necessarily in extent of ground site but in cubic content. Only 80 per cent of space should be utilised above ground floor. That should be applicable to London.

Mrs. H. V. Lanchester said that if London was to imitate New York, then Londoners would have to change their habits. Over there they went into drug-stores or restaurants in the same building: they ate on the spot. Also many of the buildings had direct communication with the stations.

Mr. Trystan Edwards was of the opinion that the true architectural unit was the city. In the old-fashioned city we had a certain number of public buildings, which stood out above shops and private houses. If we allowed tall lumps of buildings, the city existed no more: it became a mere mass of no architectural significance. If there was a definite law that commercial buildings were not to be more than 70 feet—or even less—man could adapt himself and the city still exist.

Miss Nora Heald said that in very few cases was it possible to see London buildings, because of the narrowness of the streets. She made a plea for consideration of the social obligations of the buildings, and implored that more consideration be given to the needs of the person working in it.

The President said that over-emphasis had been put upon New York, which was not a city of skyscrapers. The average building height over the whole city was four stories. He quoted Mr. Corbett as saying that though New York in places required huge buildings, it was not desirable for London.

Mr. Ewart G. Culpin said that until the Building Act was revised it would cause trouble. But regarding Mr. Oswald Milne's suggestion that an 80-ft. level would become eventually uniform all over London, he would like to know where the people were to come from to fill those flats and offices. Too much had been said about New York and the lesson London might draw from it. New York was not placed geographically as London. It was on an island, and since lateral expansion was impossible, only the vertical remained. But even so, it was doubtful whether the skyscraper repaid its cost. Its main value was as an advertisement. He was glad that Miss Heald had put forward the workers' point of view. So far the discussion had rather tended towards the æsthetic and practical sides of the question. Tall buildings, he felt, were not only a mistake; they were a menace. He believed that the thing to be considered was the replanning of London. The replanning and redistribution of sites and the decentralisation of industry were to be advocated first.

Mr. A. J. Davis said that the average Englishman tended to condemn anything new: with Mr. Milne, the speaker felt that each site ought to be treated on its merits. Speaking of the collapse of several City buildings, he regarded pumping as the danger and cause, and advocated a system of sheet piling which avoided collapses while pumping operations were being carried on. Dealing with the financial aspect of the skyscraper, America's giant buildings were not a lucrative investment. The Woolworth Building paid 1½ per cent. when fully occupied, but Mr. Woolworth had reckoned that it saved him £20,000 a year in advertising.

Mr. H. V. Lanchester said that in a mass building—given proper relation of height to site—more air and light were got.

Mr. A. O. Edwards (of Messrs. Edcaster's, contractors for Grosvenor House) said that much adverse criticism had been passed against Grosvenor House, but that it was only a matter of time before the building was considered fine. In its present position of being one section in brick and the other a steelwork frame, it was difficult to realise its future appearance. As regarded its height, people liked to get away from the dust and noise and to get air.

LONDON SQUARES.

Report of Royal Commission.

THE Report of the Royal Commission on London Squares has now been issued [Cmd. 3996, 3s. 6d. net]. The Royal Commission was appointed on August 5, 1927. Its terms of reference were:—

To inquire and report on the squares and similar open spaces existing in the area of the Administrative County of London with special reference to the conditions on which they are held and used and the desirability of their preservation as open spaces, and to recommend whether any or all of them should be permanently safeguarded against any use detrimental to their character as open spaces, and, if so, by what means and on what terms and conditions.

The Report gives a historical survey of the enclosures in London, noting that their formation has been continuous, especially north of the Thames, for some 250 years, the most active period being between the years 1800 and 1850. This section of the Report shows that not a few of the existing squares and enclosures are safe from destruction, being vested in various local authorities. Not until Endsleigh-gardens and Mornington-crescent were sold and developed, the Report says, were important enclosures built upon. The Commission discusses the legal position, and concludes that it was at any rate not within the function of any public authority to take action. With regard to Hereford-gardens, now about to be built upon, the Commission sees no objection to

business premises there, so near is the Park; but it regrets the building begun on the Baron's Court-road enclosure.

In view of the evidence heard, the Commission is strongly of opinion that, with the exception of five enclosures, all falling within the scope of the inquiry "should be preserved permanently as open spaces, subject to the conditions and terms which we discuss later. The enclosures, particularly those which abut on roads and are open to the public view, are a very distinctive and attractive feature of the plans of the parts of London in which they are situate; similar open spaces are not to be found except to a very limited extent in other towns in this or other countries. It is beyond question that the enclosures add greatly to the amenities not only of their immediate surroundings, but of London as a whole, and the air spaces they afford are of benefit to the well-being of the community. Their loss to any extent would effect an alteration in the characteristic development of the parts of London concerned, which would, in our view, be deplorable. We recognise that the comparatively few enclosures which are situate at the rear of houses and completely shut off from the public view do not form so essential a feature of the town plan as those which are open to the public view, and that the interest of the community at large in their preservation may not, therefore, be so great. Nevertheless, we consider that it is important that they should be preserved as open spaces on account of the air spaces they afford, which are of benefit to the locality, and the amenities they provide for the inhabitants of the houses immediately surrounding them."

Of the owners, the Report says:—

"To our minds, the views expressed by owners generally disclose a favourable state of affairs. It will be noted that in the case of a large number of enclosures, including many of the more important ones, the owners have indicated a willingness to co-operate in the preservation of the enclosures. In some cases, the owners have intimated that if they are allowed to retain the right to build on a portion of the enclosure, they would be prepared to agree to the permanent retention of the remainder without claiming compensation. In other cases, the owners have stated that while they cannot, or have no intention to, build on the enclosure in the near future, they do not wish to be made subject to any permanent reservation of the enclosures as open spaces."

The Report, which contains the recommendations in full, is unanimous, but for a short reservation by Sir Howard Frank, and a more important reservation by the Rev. A. G. Prichard and Mr. Snell, who, though in agreement with the main recommendations, are unable to assent to that part of the Report "which admits that any just claim to compensation exists."

Extension of Derby School.

Proposals for the extension of Derby School at a cost of £35,000 have been approved by the Education Committee for submission to the Town Council. It was intended to purchase an adjoining elementary school, together with a mill and three cottages. The accommodation would be increased from 300 to 420.

A New Reredos, Cobham Church.

A new reredos is to be provided in Cobham Church by an anonymous donor. A faculty is to be applied for, and a design has been completed by Mr. W. D. Caröe, F.R.I.B.A., 3, Great College-street, S.W.1. The scheme provides for the provision of the carved reredos in oak, the central part showing a representation of the scene from Emmaus. The east, north and south walls of the altar space are to be panelled, whilst in the south wall will be a sedilla, with a canopy above and also a credence to replace the present movable table.

THE TOWN PLANNING INSTITUTE.

Mr. E. Willis (president) took the chair at the first meeting of the session of the Institute held on September 21 at Caxton Hall, Westminster.

Jamshedpur.

Mr. F. C. Temple gave a paper on "Jamshedpur: the Birth and First Twenty Years of an Industrial Town in India." At Jamshedpur, he said, the Tata Iron and Steel Co. had acquired altogether 15,725 acres, and had built iron and steel works. The town was in the Singhbhum district of the Chota Nagpur Division in the Province of Bihar and Orissa, and was 155 miles from Calcutta and on the main line of the Bengal-Nagpur railway. Work was commenced in 1907, and by 1912 the town had been laid out to accommodate 8,000 workpeople. In 1916 it was decided to extend the works, and this involved a corresponding extension of the town, and Mr. Temple was engaged by the company to design and carry out the work. At the time of the commencement of the great expansion the town consisted of two gridiron groups, with a conglomeration of crowded insanitary huts clustered round it, and one group of pucka quarters provided with neither water nor any form of sanitary arrangement. By the time the extension of the town was commenced, there were already 7,000 employees, and the total population was somewhere about 35,000. The original town built to accommodate 8,000 workpeople did not allow for so high a ratio, and something like 20,000 people were living in mud huts in congested insanitary groups wherever they could obtain water without excessive trouble.

In June, 1919, when the author arrived, there was such dearth of housing accommodation that great pressure was put on him from all sides to proceed with the building of houses at once in spite of the recognised necessity of preparing a town plan first, and nothing but a shortage of bricks saved the town from this calamity. It was expected that the first of the new season's bricks would be available about the middle of November, so it was resolved to have an outline town plan of the area west of the Kasidih Nala ready by the end of October. Contouring of the ground was going on, but was far from complete, so planning was begun piecemeal, fortunately without any disastrous results, though it had since been apparent that a few parts of the town could have been more economically planned if full information had been available when the planning was commenced.

In making the plan, the first thing considered was the system of main roads. The consideration of the lines by which traffic would approach from the surrounding country, which was in most problems of this kind of supreme importance, was simplified by the fact that only one such approach existed, and future approaches could be made to suit the convenience of the town. The location of the points of entrance of outside traffic being thus to a large extent a problem for the future, the plan was governed principally by internal considerations. Of these the factor exercising the most profound influence on the plan was the protection of the rivers throughout their lengths alongside the town, both from the sanitary and æsthetic point of view. Everyone who had been consulted about the development of the town had advised the preservation of the river frontage along both rivers for public use. And it was plain to anyone with the least knowledge of sanitation that, as the water supply is taken from the river below the town, as little of the town drainage as possible should be allowed to fall into it. Much the easiest method of securing both these results was to construct a road as near as possible to the river side, which would form a building limit, between which and the river no buildings, except under very special circumstances, should be allowed. To the author, by early training primarily a sanitary engineer, it was apparent that such a road could be so aligned as to provide the best possible location for an intercepting sewer guarding the river. This road was so aligned that it formed the outer circle or low level system. Nothing could be better than this road for carrying circumferential traffic, and it simplified the problem of any future entrance for outside traffic by making the precise position of the points of entrance comparatively unimportant.

The next consideration was to provide for free movement of traffic between external points, important as residential and as business centres. All the villages and the main town lay on the ridge, approximately 40 ft. to 60 ft. above the Outer Circle or Low Level road. Roads to serve them were located on the high level as far as possible without making long detours, thereby avoiding the heavy haulage and expensive maintenance of steep gradients. The most important business points were the three gates to the works, one in the Southern Town, the main gate in Northern Town, and the third near Sakchi, and the main bazaar in Southern Town. The principal offices of the Steel Company were near the main gate. At these points there was bound to be concentration of traffic on foot and subsequently on wheels.

A road existed running east from the Sakchi Boulevard along the north wall of the works to the main gate and on to the Sakchi gate, and a track from approximately the same spot ran west through Kadma, Ulyan, Gumryagora and to Sonari back through the outskirts of Beldih to Sakchi. With very little alteration of alignment this had been made into a complete high level system under the names of the Inner Circle, and Sakchi Highway on the west and north, Kalimati Road on the east, and F and G roads on the south. In the original gridiron planning no road had been run through in a straight line from east to west. The Straight Mile now formed a direct connection across the Inner Circle system, and carried a large part of the fast traffic, slow moving bullock carts being sent on one side or other of the Inner Circle system. The Inner Circle system was extended, where necessary, on the high level by "loops" and connected to the Outer Circle by "links." A notable feature of the site was the "nalas" which ran up from the rivers into the town. These were the natural drainage lines and could therefore most easily be watered. In most of them the link roads between the Outer and Inner Circle road systems had been laid out on either side so that the bottoms might gradually be made into public gardens; the roads themselves had been aligned to suit branch intercepting sewers. The total length of main road in 1919 was less than ten miles, and of minor road five miles. There were now 28 miles of fully bridged metalled roads and 50 miles fully bridged and graded unmetalled roads, in which there were six causeways which were impassable for a few hours after very heavy rain.

In laying out the housing it was decided to attempt to limit the incidence of population to twelve families per acre. In planning "pucka" quarters the ¼-acre plot was taken as a basis. The smallest quarters now built were in blocks of four, so only three such blocks were placed in one acre, and the remaining quarter acre was kept as open space around them. The largest houses had 1½ to 2 acres of ground. In planning dwellings (mostly huts) built by the workmen themselves, the basis was either hexagonal groups or lines of 40 ft. by 20 ft. plots separated by 40 ft. roads. In country so undulating it was difficult to find level ground for playgrounds. Every care was therefore taken to secure as much as possible of the most level land on the tops of the ridges for permanent open spaces. Certain fairly level areas in the valleys and two wide slopes which were suitable for golf links had also been set apart. This left the slopes for the houses. In Jamshedpur proper the best part of the town had only one direction for expansion, namely, to the north. Clerks and

better class workmen's dwellings spread round the Southern Park and in Sakchi, and subsequently a village was built near the railway station. A very large part of the population consisted of people who could not afford to live in "pucka" houses. They built wattle and daub with thatched roofs, or as they became more prosperous, mud walls and thatch and tile roofs. Such habitations could last many years if little repairs were done almost daily. For that reason people of that class were encouraged to rent plots of land (the rent is about four shillings per annum for a 40 ft. by 20 ft. plot), and to build their own dwellings. The main shopping area is in Bistupur on the Sakchi Boulevard. The water supply for the works and the town was taken out of the Subarnarekha River at a point north of Sakchi downstream of the old town. During the last seven years the water delivered rarely showed faecal bacilli in less than 20 c.c.

The whole of the drainage of the town west of Sakchi and including half of Sakchi flowed into the rivers above the waterworks intake. To protect the rivers main intercepting sewers had been run between the town and the river.

The growth of the town had had three distinct stages. The small original town was constructed at one time in order to be able to start the Steel Works, and then there was a gradual growth for about eight years. Then came the big expansion, during which time the following have been designed and constructed :—22 miles of main roads, 40 miles of minor roads, 2,315 dwelling-houses, the main offices of the company, two water towers, a complete waterworks, with 56 miles of distribution mains, two sewage pumping stations, and a third which was not yet complete, 45 miles of sewer, varying in size from 4 in. pipes to a concrete ovoid 5 ft. 6 in. by 3 ft. 8 in., one "activated sludge," one "simplex" and one "septic" tank and filter, sewage disposal works, four schools, with eight more to be built, with various other buildings, and all that pertained to them.

Mr. H. V. Lanchester, F.R.I.B.A., in proposing a vote of thanks to the author, pointed out that there were several types of planning in the town, the most interesting being the hexagonal. He read a book, written about 1908, in which this type of planning was recommended, but it was only at Jamshedpur that they found it adopted for a great many years, although it had since come into vogue in Canada and other countries. The idea at Jamshedpur was an aggregation of communities rather than one city, and in India this was right in view of the conditions under which the people lived.

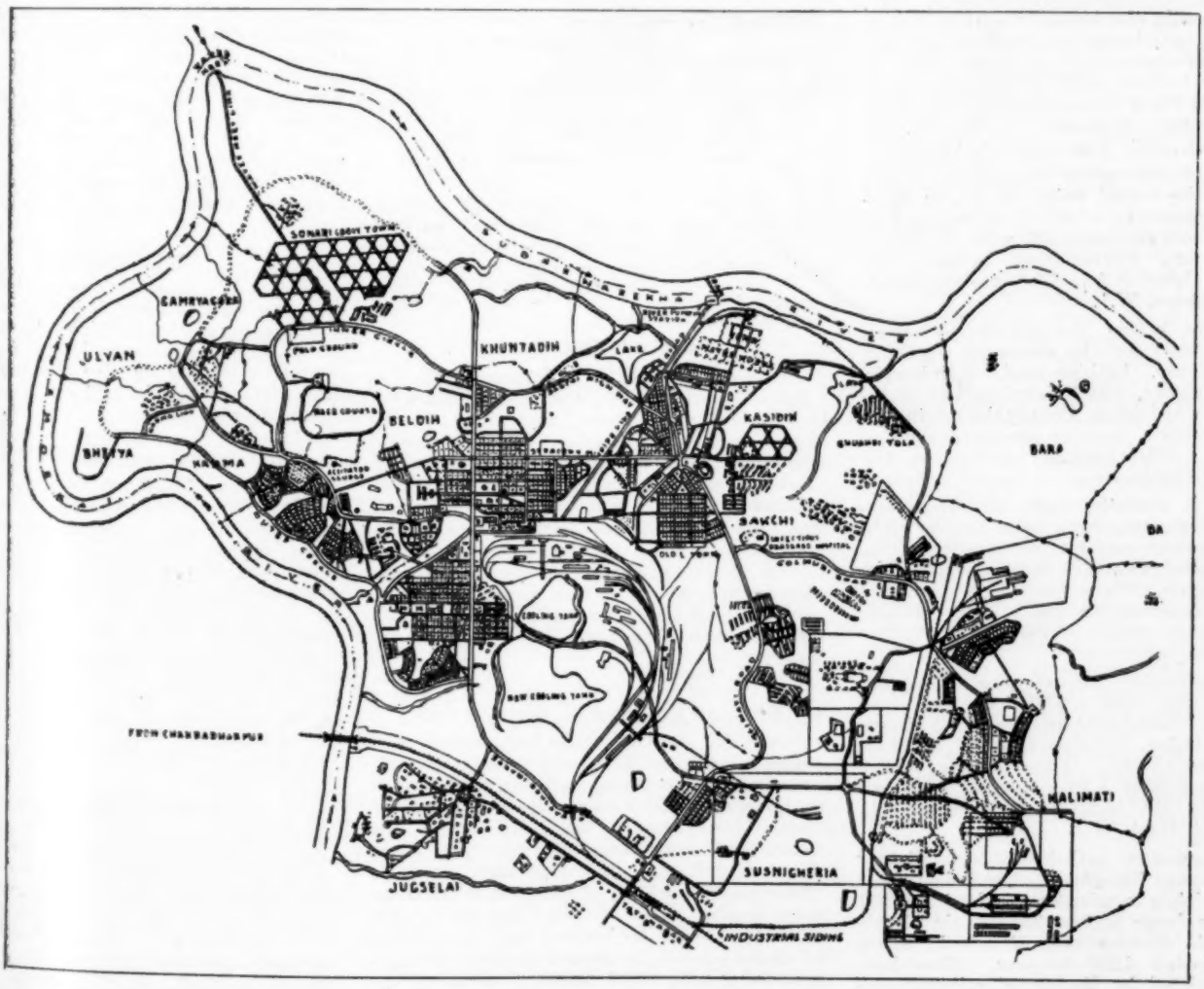
Mr. L. M. Jopling, in seconding the motion, said that several morals could be drawn from the success achieved at Jamshedpur. The first was that they could, from examples both in India and England, visualise the mess that would have been made of the town had it been commenced 50 years ago. The town was a practical demonstration of the value of town planning. In India those responsible for town planning had greater powers than were given in England, and the first thing attempted was to get possession of the land. In England, until the responsible body got complete control and ownership of the area to be planned they would continue to be confronted with difficulties.

Mr. M. R. Atkins (Calcutta), who has paid two visits to Jamshedpur, commented on the reinforced brick construction employed for engineering works, and the reinforced concrete pipes used for the water supply. He congratulated the author on the success of the sewage system, which had created interest all over India, and said that as an engineer he did not know whether the planning of Jamshedpur without the collaboration of architects was a wise thing or not. At the same time Mr. Temple had created a town which had very pleasing features, and a standard of sanitation in advance of almost every other town in India.

Mr. L. Bogle (Lucknow) expressed the view that the modifications on the original scheme made by the author were improvements. He agreed that group planning was one of the chief factors of Indian suburban planning. The Indian did not like a lay-out such as would be popular in an English garden suburb. He liked to be close to his neighbour, and in a community round a mosque or temple or garden. Caste kept the people in centres, and in Lucknow he had to completely replan an area because the community included a number of pig and poultry keepers, and no one else would live with them. Whilst an Englishman wished to have his house surrounded by a garden, the Indian desired to have his house round the garden or courtyard.

Mr. G. L. Pepler said he regarded papers on planning of towns in other countries chiefly as lessons showing how the experience of others bore with their own. England did not offer many opportunities for the creation of new towns, although they had them at Letchworth and Welwyn, and they had the developments in the West Kent coalfield. He would like to know if at Jamshedpur they had any definite principle as to the nearness of houses to the steel works. To their minds plots of 40 ft. by 20 ft. seemed tight building, and it interested him because people coming to this country often asked him if the English basis of 12 houses to the acre would apply to their particular country. He did not know, and it would be interesting to learn what was meant exactly by 12 families per acre.

Sir Selwyn Fremantle said he noticed that the people were allowed to take earth for building their houses from the vacant spaces, and that these places were filled up with rubbish. That did not seem to him to be



Jamshedpur General Town Plan in 1927.

likely to result in very agreeable places. He also asked if the Indian workmen were anxious to buy their houses.

Mr. C. H. Bompas (late chairman of the Calcutta Improvement Trust) said the fact that Tata's thought town planning was necessary for the new town was due to the Town Planning Institute.

Mr. W. R. Davidge remarked that the hexagonal lay-out was a most useful way of dealing with the slum dwellers, who could make their own mess in their own place.

The President said one fact which struck him was that there was only one approach to the town, which certainly lessened the difficulties of transport, but seemed rather exceptional in the case of such a large town.

Mr. Temple, in reply, said he had been responsible for the planning since he first went to the town, and for the waterworks and sewage and any of the methods of construction, and sometimes he wished there were others to take some of the responsibility. Professor Adshead gave him a list of books on town planning, and he got the hexagon plan from one of them. It was a plan by a man named Muller. In 1920 they wanted labourers, and 30,000 people came in from the famine stricken Central Province. They brought cholera also, and 600 of them died. On one day his staff picked up 51 corpses. These people had to be placed somehow, and he put them into groups in hexagons. With regard to the plots, they put the houses side by side, 40 ft. by 20 ft., and had a 40 ft. road back and front, and they maintained the basis of 12 families to the acre by not allowing the group to grow too big. The result was that except in a few places they had not got more than 12 families per acre. These were not going over the whole 25 miles of property, but taking any reasonable area.

NEW CINEMAS

Provincial Cinematograph Theatres, Ltd., have acquired a site beyond the Haymarket, Edinburgh, adjoining Caledonian-road, for a new super-cinema to hold 3,000. This is in addition to their other newly-commenced "Super," in Clerk Street—also to hold 3,000. The company's architect is Mr. W. E. Trent, F.S.I., 123, Regent-street, W.

A syndicate, the Savoy Cinemas, Ltd., has purchased the site of Brill's Baths, in East-street, Brighton, on which it is proposed to build a cinema seating 2,500, with an underground garage. The architect is Mr. F. C. Mitchell, L.R.I.B.A., 80, George-street, Portman-square, W.1.

Plans are before the Edinburgh Dean of Guild Court for the extension of Caley Picture House, Lothian-road, Edinburgh. The new scheme, which involves the inclusion of the adjoining County Hotel in the extended cinema, aims at providing a house of 2,000 to 3,000 capacity instead of the present 800-900 house.

Messrs. E. Earfield, Ltd., 30, Birchfield-road, Birmingham, have been successful in securing the contract for the erection of the proposed picture theatre in Kingsbury-road, Birches Green. Plans have been prepared by Mr. A. L. Snow, A.R.I.B.A., 110, Colmore-row, acting on behalf of the Apollo Picture Play House, Ltd.

The Provincial Cinematograph Theatres, Ltd., have this week accepted the tender of Messrs. R. I. Leighfield and Son, 1, Whitney-street, Swindon, for the erection of their new picture theatre. The building, which will accommodate 1,100 persons, has been designed by Mr. William E. Trent, F.S.I., 123, Regent-street, W.1.

A new concern, called the New Victory Super-Cinema (Romford), Ltd., has been formed, with a nominal capital of £35,000, to build a large picture theatre in South-street and Western-road, Romford, Essex, accommodating 1,200 persons. Plans have been completed by Messrs. Harrington and Evans, architects, South-street, Romford.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

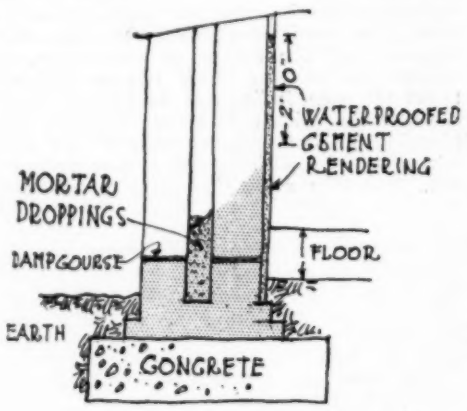
May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting!—Ed.

Damp Walls

[Replies to "A. B.," September 28.]

Sir,—The appearance of dampness just above floor level in the outer walls may be due to a defective horizontal damp-proof course, but unless the dampness shows also upon the internal partition walls it is probable that the trouble is caused by the accumulation of mortar droppings in the cavities of the outer walls. When such droppings fill up the cavity to a level higher than the horizontal damp-course, the moisture is conducted to the inner leaf of the wall.

If your correspondent could be certain that the dampness is caused in this way, the clearing out of the base of the cavity would provide a cure, but if the horizontal damp-course has perished the trouble and expense would have been wasted. I should be inclined to hack off the existing plaster to a height of two feet above where the dampness shows, and re-render with two parts of coarse, washed sand to one part of cement, to which has been added 5 per cent. of a reliable waterproofing powder. The dampness still remains in the wall, but it is kept back by the waterproofed cement. It is necessary to skim over



the surface of the waterproofed cement rendering with gauged plasterers' setting stuff to provide an absorptive surface that will not induce condensation.

L. E. Walker.

Contract Question.

[Reply to "T. H. R.," September 21.]

Sir,—Ordering goods, taking particulars on the site for same, seeing that they are delivered to time, and largely accepting responsibility for them, constitute a definite service to the contract, for which the contractor is entitled to charge a profit. Upon a small item this may be negligible, but if the order be multiplied by five, the contractor would find he was rendering an appreciable effort of service for nothing if he were bound to charge no profit upon the new situation. "T. H. R." seems to ignore this point in his reply to my letter.

Equity.

[Reply to "B. C. F.," September 21.]

Sir,—The contractor has been saved, presumably, the clerical work connected with ordering and arranging delivery of the goods in question. He is also relieved of all responsibility regarding the efficiency of the goods and their suitability for the work. Further, if he can show that the delivery of these goods has been of inconvenience on the job, causing delay, he has redress in that direction; but if he has not had the ordering of them himself he cannot claim profit upon something upon which he has given no service. I may say I dislike intensely the system of passing orders other than through the contractor, and it saves nothing if prime cost items are properly scrutinised.

Architect.

[Reply to T. H. R., September 28.]

Sir,—In suggesting that all p.c. items should be dealt with through the contractor, I merely meant that goods covered by such items should be ordered through the contractor. I find that this practice removes much occasion for friction, and also many excuses for delay due to lack of co-ordination between the general contractor and the sub-contractors.

Architect.

Sir,—I am obliged by your correspondent's letters. In reply to T. H. R., may I say that the bill included the following item:—

Prime Cost.—The words "prime cost" applied in the specification and bills of quantities to goods to be obtained and fixed by the contractor shall mean the sum paid to the merchant after deducting all trade discount for goods in the ordinary course of delivery, but not deducting discount for cash and such sum shall be exclusive of special carriage, the cost of fixing and contractor's profit.

It will be noted that the bill specially invited the contractor to provide for profit "if desired"; as £3 was extended, it clearly was desired, but at the settlement it was struck out. I agree that the cash discount can only be allowed to the person paying the cash, but I suggest that the contractor clearly should be that person. Can T. H. R. give me any good reason for removing the ordering of these goods from the contractor? There can be no question of price or quality, as the architect selects from whomever he pleases.

So far as the last sentence in my letter is concerned, it was a simple statement of fact. In practice, it is the builder who has to give way, as he had to give way in this case, and it is therefore incumbent upon an honourable profession that there should be no suspicion of bias on the part of its members. In this case there is no question of bias. Whoever was entitled to the order for these goods, it certainly should not, in my opinion, be the architect or a company with which he is associated. My aspersion was not upon the profession, but upon a particular line of conduct, and was surely not "unwarrantable."

B. C. F.

Shock Absorber.

Sir,—A building has been erected, the top-floor machinery of which has been installed. The working of the machinery has a tendency to cause cracks in the walls. Can any reader suggest a remedy or give the name of any firm who can supply and fix some form of shock absorber?

A. B. C.

Heating and Ventilating.

Sir,—I am interested in the science of heating and ventilating, and should be glad of replies to the following questions:—(1) What modern systems of ventilation are most generally installed in conjunction with a low-pressure hot-water heating apparatus for cinema theatres of, say, 1,500 seating capacity? (2) What temperatures are usually specified by heating engineers for same? (3) What advantages (if any) has wrought-iron tube over mild steel for heating systems? (4) Is there any school, college or course in existence giving training for the A.M.I.H.V.E.?

Research.

Cube of Small House.

Sir,—With regard to the much-discussed subject of cubing a house, what do you think is a reasonable cube for a modern thatched cottage, including profit and overhead charges, but not architect's drawings and supervision? What should a small builder's overhead charges be, and what should his profits be on a house?

Profit and Loss.

THE BUILDING TRADE

EVERYDAY SCIENCE FOR ARCHITECTS AND BUILDERS—XXXVII

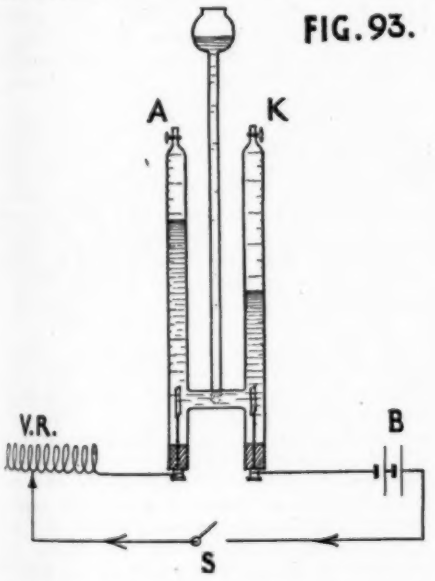
By A. M. GILES, B.Sc., A.I.Struct.E., A.M.I.E.E.
Diagrams and Illustrations by M. R. DUMVILLE.

In previous articles it has been demonstrated that a voltage or electro-motive force and, consequently, an electric current can be obtained and maintained by the expenditure of chemical, heat, or mechanical energy. It is now proposed to deal with the effects produced by an electric current when it is flowing round a circuit. These are of immense importance and may be termed the chemical, the heat, and the magnetic effects.

The Chemical Effect of Electrolysis.

It is almost impossible to estimate the requirements in the matter of designing and erection of buildings for factories in

FIG. 93.



which those industries connected with electrolysis or the chemical effect of a current are to be carried on. One need only mention a few, such as the manufacture of alkalis and bleaching powders, organic chemicals and dyes, the refining of bullion, the extraction of such metals as aluminium, tin, zinc, and copper, and the important and widespread industry of electro-plating, to show how helpful can be a fundamental knowledge of electrolysis. It also has been suggested, and ought not to be overlooked, that electrolytic effects may be responsible for the decay of metals. This is, perhaps, of particular interest to plumbers, especially where water fittings, pipes, cisterns, and joints are concerned.

Now, since it was Volta who discovered that an electric current could be caused to flow round a circuit by the expenditure of chemical energy, it is quite natural to suppose he also found that if a current of electricity were flowing round a circuit, and that part of the circuit consisted of a solution of a chemical compound, the material would be decomposed by the current into its component parts. Later it was established by other experimenters that most liquids or solutions could be decomposed by the passage of an electric current through them. Those liquids which are insulators, *i.e.*, will not allow a current to pass through them—such as oil—will naturally not be decomposed. The decomposition of a solution by an electric current is known as electrolysis, and the solution itself is called an *electrolyte*.

Experiment, Figure 93.

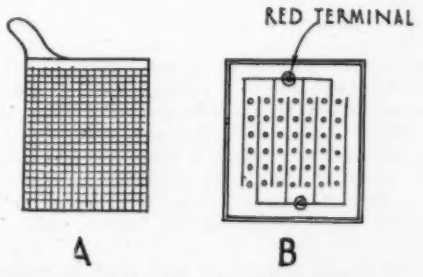
This experiment is to show how, by electricity, water can be decomposed into its constituent parts, viz.:—oxygen and hydrogen. The apparatus containing the liquid is known as Hoffmann's voltameter. It consists of three vertical glass tubes. The two outside ones are connected by a cross tube, which is itself connected to the middle tube, at the top of which is an open container in the shape of a bulb.

In the lower end of each of the side tubes, which, by the way, are graduated, is fitted a stopper through which passes a conducting wire having at the end opposite the cross tube a piece of platinum foil. To start the experiment the taps at A and K are opened. Water is then poured into the bulb. It will rise in the graduated tubes, driving the air out through the taps until it has reached them and is standing at the same level in all the three tubes. The taps are then closed.

B represents a battery of two cells joined in series. The long thin mark represents the positive terminal of the battery, while the short thick one is the negative terminal. The negative end of the battery is connected to the terminal at the bottom end of side-tube K. The positive end of the battery is connected to one end of a switch S, the other end of which is connected to an arm carrying a movable contact denoted by the black arrow head. This can slide along V R, which is a variable resistance. The end of the variable resistance is connected to the terminal at the lower end of the graduated tube marked A.

As soon as the switch is closed, bubbles of gas begin to collect on the surfaces of the two pieces of platinum foil. The gases then rise up the side tubes to the top of the liquid, which is thereby forced down them and up the middle tube. It will very soon be seen that the volume of gas in tube K is increasing twice as quickly as that in tube A. The platinum foil connected to the terminal by which the current enters the liquid is known as the *anode*, while that by which the current leaves the liquid is called the *kathode*. In the diagram it is seen that the current is entering the liquid in the side tube A. This is the anode. It is leaving by the side tube B. This is the kathode. The gas collecting at the anode, *i.e.*, in the tube A, is oxygen,

FIG. 95.



while that collecting in the other tube is hydrogen.

Now just as water has been decomposed by an electric current, so solutions in water of other substances can be decomposed, and it will be found that oxygen gas will always collect at the anode, while hydrogen gas and metals will collect at the kathode. For example, ordinary table salt (chemical formula NaCl, which means that it is composed of a metal sodium nd a gas chlorine), when dissolved in water can be decomposed by an electric current.

The metal—sodium—will collect at the kathode, and the gas—chlorine—at the anode, but both the sodium and the chlorine interact with water. The sodium combines with the oxygen and one of the parts of hydrogen to form caustic soda, and sets free the other hydrogen which collects on the kathode, while the chlorine combines with the two parts of hydrogen to form hydrochloric acid, and sets free oxygen which collects at the anode. This agrees with the experiment described above. The description of the previous experiment, given, perhaps, rather fully, will, nevertheless, help us to understand rather more easily the next two experiments.

Electro-plating, Figure 94.

In electro-plating, the metal liberated at the kathode must not interact with water —*e.g.*, it can be copper, silver, or gold. Figure 94 is an interesting diagram, showing how to connect up an electric circuit in order to get copper collected at or plated on the cathode. We have first of all a glass jar containing a solution of copper sulphate ($CuSO_4$). Hanging over the sides of the jar are two copper plates marked A. To each of these is fastened a terminal,

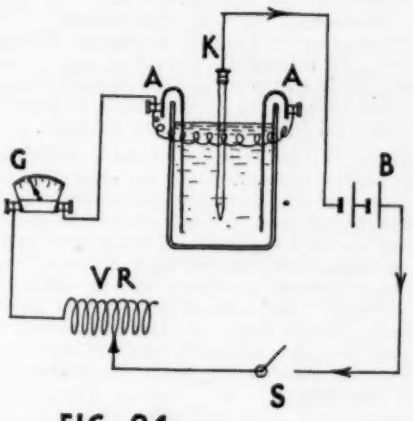


FIG. 94.

and these two terminals are shown connected together by a curly piece of wire. These two copper plates will form the anode. Fitted up in the liquid between the two copper plates is the kathode K—*i.e.*, the object upon which copper from the solution is to be deposited or plated. B is a battery which may consist of two cells connected in series. G is a galvanometer or ammeter by which will be measured the current flowing round the circuit. VR is a variable resistance by which, as described in the previous experiment, the resistance of the circuit can be adjusted so as to have the current of the size we require. S is a switch by which the circuit can be closed or opened—*i.e.*, by which the plating operation can be started or stopped.

It is very necessary that the connecting up of the various parts of the circuit shall be correctly done in order to get the deposit on the kathode. The diagram should make it quite clear that the current should flow from the positive terminal of the battery to the switch, then to the resistance, on to the ammeter, and so to the anode, thus passing through the solution to the kathode (where the copper will be deposited) and so back to the negative terminal of the battery.

All sorts of refinements, of course, may be necessary, but in the main the principle of copper-, silver-, or gold-plating can be carried out by fitting up as shown in diagram, figure 94. Faraday enunciated various laws showing how the amount of metal deposited depended upon the size of the current, the time, and the electro-chemical equivalent of the metal, but it does not seem necessary to consider them just here.

Experiment, Figure 95.

Before leaving the chemical effect of a

current, we might with interest describe the accumulator or storage cell. This low-tension battery, as it is sometimes called, plays such an important rôle nowadays that it is as well to know something about it. The case is often made of celluloid, and one of the battery terminals is marked red. The case contains lead plates dipping in sulphuric acid. The cell can be made to supply electrical pressure at a voltage of 2, 4, 6, 8, or any even number of volts. Another important point is its capacity, which is the number of *ampere-hours* that it will give before it is "run down." The capacity depends upon the number and size of the lead plates.

The popular belief is, as its name accumulator or storage cell seems to indicate, that it is an arrangement into which electricity is pumped until it is full, when it can be used as occasion requires until it is emptied or run down again. It does accumulate or store up energy—not electrical, but chemical. Its plates in some cases are made of grids, as shown at Figure 95A. When made up, the grids contain a paste of red lead and sulphuric acid. Two, three, four, or more plates can be joined together to each terminal of the cell. To prepare the cell for use after it has been made up, it is necessary to pass the correct current through it until gas is freely liberated or the sp. gr. of the acid is 1.2 as measured by an hydrometer. The charging current must be made to enter at the red terminal. Chemical action takes place, and, as previously mentioned, oxygen gas will be set free at the anode or entering plates, and hydrogen at the kathode.

When the charging of the cell is finished, the plates connected to the red terminal will be a dark brown colour, caused by the peroxide of lead formed there, while the other plates will be the lightish grey colour of spongy finely divided lead. The cell now gives a steady pressure of 2 volts. Increasing the number of plates does not increase the voltage; it only increases the capacity. To increase the voltage it is necessary to connect cells in series with one another.

Figure 95B gives the plan of an accumulator. It shows four plates connected to each terminal of the cell. The little circles are sections of glass rod, or any other insulating material, placed between the plates to prevent "short-circuiting."

EXAMINATIONS FOR PART-TIME STUDENTS

We have received a copy of the Board of Education "Report of the Departmental Committee on Examinations for Part-time Students" (H.M. Stationery Office, price 1s. net). The terms of reference were :—"To inquire and report as to the arrangements for the examination of students attending part-time schools (excluding Art Schools) under the Regulations for Further Education, with particular reference to the place and value of examinations as an element in training for industrial, commercial and professional activity."

On the question of "A National Certificate in Building," the committee state :—"We have received suggestions from several quarters to the effect that a national certificate in building is desirable. We believe that in many schools there already exist scientific courses in building of a type suitable for national certification, so that the principal problem to be solved is that of finding a suitable professional body to co-operate in this matter. We have been told by several witnesses that the Institute of Builders fulfils the conditions required, but whether this view would commend itself to all the parties concerned we are not in a position to say. We think that the whole question of national certificates in building merits careful exploration by the Board of Education and the other interests involved."

THE LIBERAL POLICY FOR INDUSTRY*

In a foreword to this little volume or pamphlet, it is stated that the Committee who were responsible for the Liberal Industrial Inquiry suggested to Mr. Hodgson that he should write a short and popular book which would give the gist of the Report of the Committee, which runs to nearly 500 pages, and that although the selection of topics is that of the author, the Committee is satisfied that this book conveys "the atmosphere of their Report and fairly represents in its main outlines the policy therein embodied."

The author, in some 90 pages of text, has certainly produced a most readable little volume, with the recommendations carefully summarised, and we recommend those who have neither time nor inclination to study the full Report, but who wish to gain an idea of the views of the Liberal Party on Industrial Reform, to spend half-an-hour in perusing this little pamphlet. Where industry is concerned it is unnecessary to take Party views on every question discussed, although political issues are involved in some of them, and the Report deals with questions in which everyone should take an interest and seek instruction at the present time. A Party not in power, taking a survey of the whole industrial position, has the advantage of any Party in power, in that, being irresponsible, it can sketch out a policy on large lines impossible of accomplishment in any single Parliament, or, indeed, in a continuous succession of Parliaments, and it is not pinned down to performance by promises given at the election which put it in office. That is the case in the policy sketched out in this little volume, and were all the recommendations acceptable it would probably take years of continuous office by one Party to put them into effect.

The Liberal Party, as is shown in this volume, is strongly anti-Socialist, and by no means desires to "scrap" the whole industrial system, and for this reason alone the views expressed in the Report and summarised in this handy form are deserving of study by all interested in improving our industrial conditions. The political issues involved in the recommendations may perhaps be said to be almost limited to Free Trade *versus* Protection, the taxation of site values, and possibly the purchase of the mines by the State.

We wish that our space would permit us to consider and discuss the many interesting industrial questions raised, but they cannot be considered in a short notice of this volume, as each subject would require a separate article, and we may instance the recommendations for the introduction of a minimum wage; the introduction of piecework; and profit-sharing; beside the recommendations which relate to peace in industry and the setting up of an "Economic General Staff, a Committee of Economic Policy," *etc.*, etc. The comment that where profit-sharing schemes have failed this has been due to "a sly desire" to detach the workmen from their unions we consider a little unfair, and the suggestion that a period of slack trade is a national opportunity for carrying out such works as new roads, new houses, new schools, new towns, etc., appears to us to be putting the unproductive expenditure before the productive. We take exception to a kind of hint that in connection with the unequal distribution of wealth the law of inheritance might be touched, and this seems inconsistent with the views as to the importance of capital found in other parts of the volume. The passage we refer to is "A firm handling of the problem of inheritance would certainly do something to end the system under which great fortunes persist in stagnant pools for generations. But it is not enough merely to break up these accumulations, and it may even be dangerous. For the present it is largely out of the superfluity of the rich that industry is financed, and it is obvious that industry will continue to be largely dependent on the savings of the rich under the new order." The Report then continues that the real problem is how to mobilise the savings of the people so that they may fulfil the service at present performed by the rich. We consider a half hint of this nature undesirable, and the danger alluded to is shown to be unfounded, as immediately above, the death duties and super-tax are alluded to. With death duties of the present magnitude no great fortune can be retained for generations.

We must conclude this brief notice by saying that the summary at the end of each chapter of the proposals, in leaded type, is of great assistance to the reader, and the author has performed a valuable service to his Party in the way in which he has furnished this short guide to a Report too voluminous to appeal to the general reader.

* "The Liberal Policy for Industry," being a shorter version of "Britain's Industrial Future," the Report of the Liberal Industrial Inquiry. By Stuart Hodgson. (London: Ernest Benn, Ltd.) 6d. net.

BOOK REVIEWS

Fire Protection in Factories. For Official Use. Safety Pamphlet No. 13. Issued by the Home Office. London: His Majesty's Stationery Office. Price 6d. net, or, by post, 8d.

Fire-resisting construction has undoubtedly reduced the risks of fire in all classes of building to which it has been applied, but there are so many other factors that have entered into industrial life, to add other and partially compensating fire risks, that fire protection is still a matter of first importance, and a subject which every architect of factory building should make a special study. This pamphlet is full of invaluable information. One looks for a wider application of chemical knowledge to fire-extinguishing method, particularly as a good many fire causes are increased rather than lessened by the use of water; but, so far, this seems to be confined almost entirely to small first-aid appliances. The major difficulties seem to be that any wholesale use of gases that will not support combustion, introduces an element that will not support life. Science has still a long path to travel, and a way will undoubtedly be found sooner or later. We commend the pamphlet to all who believe in locking the door before the theft of the horse.

Faults and Failures in Hot-Water Work. By Frederick W. Dye. (London: E. & F. N. Spon, Ltd., 57, Haymarket, S.W.1; and New York: Spon & Chamberlain, 120, Liberty-street.) 216 pages and 113 diagrams. Price 8s. 6d. net.

To those who are familiar with the author's previous books on kindred subjects, this volume is a welcome addition. Its diagrams are faultless and the explanations most lucid. The author's 40 years' experience has certainly made him an authority upon what is undoubtedly his "pet" subject. It is by a thorough understanding of the faults and failures of already-installed systems that success is made possible in future work. Many of us who are householders will find in this book very much useful information about our hot-water systems, and certainly every installer of heating systems, whether he be local or national, should have a copy in his library.

The author has set out very clearly how to determine the "Coefficient of Radiation," also the "Power Rating" of boilers. These involve elementary mathematics, because of which, it is feared, some craftsmen will not benefit. It is, however, hoped that the day is fast approaching when a few figures, or a simple formula, will not be so terrifying to the people engaged in the application of science to this technical work. As the author suggests, it should soon be possible for the power ratings of boilers for domestic and general heating purposes to be comparable, if not standardised.

NEW BUILDINGS IN LONDON

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned.

Acre-lane.—BUILDING.—Messrs. Bethell, Swannell and Durnford, architects, 16a, John-street, W.C.2, have made application to the Lambeth Borough Council for sanction to the erection of a building on the southern side of Acre-lane, abutting on Buckner-road and Porden-road.

Coulsdon.—HOUSES.—The Coulsdon Court estate is to be developed by the erection of residences. The surveyors are Messrs. Bedford and Kent, 69, Piccadilly, W.1.

Crouch End.—HALL.—The contract for the new Earl Haig Memorial Hall and Institute in Felix-avenue, N., has been placed by the British Legion with Messrs. Hollings & Sons, 31-37, North Hill, Highgate. The hon. architect is Mr. A. G. Shearing, 12, Fortress-road, N.W.5.

Dulwich.—BANK.—Messrs. Lloyds Bank, Ltd., are negotiating for a site known as the Dulwich Chalet with a view to the erection of a branch bank

Ealing.—FLATS.—A large development scheme is to be carried out in Hanger-lane, W.3, where the Ardsley Estates, Ltd., have decided to build extensive blocks of residential flats. The builders are Messrs. Stewart and McDonnell, 54, Threadneedle-street, E.C. The plans have been prepared by Messrs. T. P. Bennett and Son, F.R.I.B.A., 41, Bedford-row, W.C.1.

Enfield.—EXTENSIONS. — Large extensions are to be made at World's End Hospital, Winchmore-hill, for the Enfield and Edmonton Joint Hospital Board. The plans have been prepared by Mr. H. R. Crabb, A.R.I.B.A., and tenders are now being invited.

Grosvenor-place.—IMPROVEMENTS.—Nos. 4 and 5 have been acquired by the Committee of the Ladies' Carlton Club. Extensive decorative and furnishing work will be carried out.

Hendon.—BUILDING.—The University of London have placed a contract with Messrs. Leslie and Co., Ltd., Kensington-square, S.W.3, for the erection of the proposed observatory in Mill Hill-park. The plans have been prepared by Messrs. Wimperis, Simpson and Guthrie, FF.R.I.B.A., 61, South Molton-street, W.1.

Lambeth.—BUILDING.—Mr. W. M. Epps, F.R.I.B.A., architect, 616, Bank-chambers, W.C.1, has submitted plans to the local council for the erection of a building on eastern side of Dolland-street.

Leyton.—FACTORY.—Mr. W. M. Brand, of Oldhill-street, N.16, has made an application to the Leyton Town Council for erection of a factory at Pioneer Works, Park-place, Church-road, Leyton.

Mile End.—STORES.—The Works Department of Messrs. Charrington's Brewery, Ltd., are to shortly commence the erection of a large bottling stores on a site in Nicholas-street, E.1. Plans have been prepared by Messrs. William Bradford and Son, 12, Regent-street, S.W.1.

Mitcham.—FACTORY.—The Victoria Fencing Co., of Merton Abbey, S.W.19, have submitted plans to the Mitcham Urban District Council for factory buildings in Church road, Mitcham, S.W.

Old Change.—PREMISES.—A large warehouse is to be built on the site of Nos. 36, 37 and 38. The builders will be Messrs. Ashby and Horner, Ltd., 8, Aldgate, E.1 The plans have been prepared by Mr. A. Burnett Brown, Lennox House, Norfolk-street, W.C.2.

Peckham.—REBUILDING.—The Gaumont-British Picture Corporation, Ltd., have placed a contract with Messrs. Thomas and Edge, Station-buildings, Cross-street, Woolwich, S.E., for the rebuilding of the Peckham Hippodrome in High-street, S.E. The heavy steel framework will be supplied and erected by Messrs. Moreland, Hayne and Co., Ltd. The plans have been prepared by Mr. Frank T. Verity, F.R.I.B.A., 7, Sackville-street, W.1.

Ponders End.—BUILDING.—A large building is to be built for the British Sangamo Co., Ltd., engineers. The builders are Messrs. G. E. Wallis and Son, Medway House, Old Cavendish-street, W.1, and the steelwork will be supplied by Messrs. Redpath, Brown and Co., Ltd., 3, Laurence Pountney Hill, E.C.4. The architects are Messrs. Wimperis, Simpson and Guthrie, 61, South Molton-street, W.1.

Portman-square.—SHOPS.—Messrs Higgs and Hill, Ltd., Crown Works, South Lambeth-road, S.W., are to erect a large block of flats and shops on the site of Nos. 1-9, for the Prudential Assurance Co., Ltd. The plans have been prepared by Messrs. Joseph, 2, Paul's Bakehouse-court, E.C.4.

St. John's Wood.—HOME.—The Governors of the Hospital of St. John and Elizabeth are raising funds to the extent of £30,000 to enable a new nurses' home to be built. Accommodation for 100 nurses will be found when the building is completed. The plans are being prepared by Mr. H. W. Binns, F.S.I., 15, Soho-square, W.

Somers Town.—REBUILDING.—In connection with the paragraph which appeared under this heading in our issue of September 21, we give the address of Mr. W. T. Yates as 171, Hertford-road, Enfield; it should have read 171, Hertford-road, Lower Edmonton, N.9.

Swiss Cottage.—RECONSTRUCTION.—The Metropolitan Railway Co. have placed a contract with the Pitcher Construction Co., Ltd., 57, Ashburton-grove, N.7, for the reconstruction of Swiss Cottage Station. The steelwork will be supplied by Messrs. Powers and Deane-Ransomes, Ltd., Cubitt Town, E.14. The architect is Mr. W. Clark, Baker-street Station, W.1, the engineer being Mr. Wilson.

Tulse Hill.—EXCHANGE.—The Lambeth Borough Council has received a letter from the Controller of the London Telephone Service stating that an additional exchange is to be built in the Brixton-hill district.

Uxbridge-road.—SHOPS.—A large site has been acquired at Ealing, W.3, by clients of Messrs. Hillier, Parker, May and Rowden, 27, Maddox-street, W.1, on whose behalf they have prepared plans for a large block of business premises. There will be six shops.

Walham Green.—EXCHANGE. — H.M.O.W. has prepared plans and now invite tenders for the erection of an employment exchange at Walham Green, S.W.

West Norwood. — ALTERATIONS. — Messrs. Hoare and Co., Ltd., proposed to make alterations at the "Bricklayers' Arms," Chapel-road, West Norwood. Application has been obtained from the Lambeth Council.

Whitechapel.—ADDITIONS.—Additions and alterations are to be made at St. Peter's Hospital, Vallance-road, E.1, for the Committee. Plans have been prepared by Mr. E. S. Ruthen, A.R.I.B.A., 33, Great James-street, W.C.1

Willesden.—BUILDING.—Plans have been prepared by the Imperial Machine Co., Ltd., for the erection of new buildings, including a foundry, at the Langston Engineering Works, Langston-road, N.W.2.

Cement Manufacturer's Estate.

The will of Mr. Walter Johnson Cooper, of Parkfield, Paignton, and of Penarth, Glamorgan, chairman of the South Wales Portland Cement and Lime Co., Ltd., a director of the British Portland Cement Manufacturers, Ltd., and of White's South African Cement Co., Ltd., has been proved at £92,834 gross, with £82,503 net personalty.

Canadian Hotel, Halifax, N.S.

We learn that the Canadian National Railways has awarded the contract for the construction of the new "Nova Scotia Hotel" and railway terminal at Halifax, N.S., to the Foundation Jupiter Company, Ltd., of Halifax, a subsidiary of the Foundation Company of Canada. The contract for steel work for the structure was awarded to the Dominion Bridge Co., Ltd., of Montreal.

TRADE NEWS

An Asbestos Dividend.

The directors of Bell's United Asbestos Co., Ltd., have declared an interim dividend on the Ordinary shares of 1s. per share, being 5 per cent. (actual), less income tax, on account of the current year. The dividend will be paid on the 15th prox. to shareholders who were on the register on September 29, and the Ordinary share transfer books will be closed until October 13.

Concrete for Building.

Number 2 of the "Concrete Way," for September, has just reached us from the British Reinforced Concrete Engineering Co., Ltd., of Stafford. This little magazine—which incorporates the "Roadmaker"—has some very interesting features. Mr. M. Wheeler, F.R.I.B.A., writes on the Goetheanum, at Basel—that great effort of Rudolf Steiner, carried out in reinforced concrete. A most valuable contribution from the architect's point of view is an article on "The Theatre of To-day," by Mr. Peter Bax, of Drury-lane. Of great interest to theatre designers, it is the second of a series of articles on the planning of public buildings, written from the point of view of those who use the buildings.

A Tale of a Tile.

One of the most delightful productions that we have seen for some time has been brought out by the Courtrai-du Nord Tile Co., Ltd., 161, Borough High-street, S.E.1. Under the title of "Once Upon a Time," the story of the Courtrai-du Nord tile is told in the style of a fairy-tale, by Louis Raemaekers, and is illustrated in colour with some piquant and wholly delightful designs by the author. If the text is to be believed, we learn that the Courtrai tile had its origin in the inadequacy of a straw roof, which said roof leaked and so spoiled the tubs of good beer belonging to one Droogloods—an early Flemish chief. His heart broken and his beer spoiled—he learnt from the invading Romans the secret of tile-making, and so founded the industry in Flanders. In such light vein the story runs on and gives some account of the five Courtrai-du Nord works, which now have a total output of 90,000,000 tiles a year. Every architect and builder should endeavour to obtain a copy of this book, delightfully got up on art paper and finely printed.

Builders' Merchandise.

From Messrs. Young and Marten, Ltd., of Caledonian Works, Stratford, E., comes a brochure in which are illustrated a few of the products for building use stocked by this firm. Messrs. Young and Marten regard the pleasing of the building owner as their aim, in the sure knowledge that pleasure to the purchaser results in credit and profit to the builder. We understand that all the items sold represent the fullest possible value, and, moreover, the designs are artistic and thoroughly up to date.

Daylight Illumination.

We have received from Messrs. Holophane, Ltd., of Elverton-street, S.W., a copy of a most useful little publication, "Holophane Illumination." This issue is devoted to daylight illumination, and particularly regarding the use of ultra-violet ray glass. It contains articles written by Dr. James Kerr, late School Medical Officer for London; Dr. S. English, late of Sheffield University; and by Mr. J. D. Scott, A.R.I.B.A., the latter relating to the practice in "ancient lights" cases. Architects should find this of great practical value, and in writing for their copy should ask, also, for an issue of a booklet containing part of an article by Dr. S. English, which gives a large amount of data obtained from practical experiments on various types of ultra-violet ray transmitting glass.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aldershot	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Alfreton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Alnwick	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashford Kent	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ashington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aylesbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Aylsham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Banbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnstaple	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Basingstoke	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/10	1/10	1/10	1/11	1/10	1/10	1/9½	1/4½
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bradford-on-Avon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Braintree	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bridlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bromsgrove	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bromyard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½
Bungay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/1½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Buxton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Canterbury	1/4	1/4	1/4	1/4	1/4½	1/4	1/4	1/0
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Carlisle	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chadwell	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chorley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cirencester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Clacton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cranbrook	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Deal	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Denbigh	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Devizes	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dewsbury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dorchester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dorking	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dovercourt	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Driffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Droitwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ely	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Exeter	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Exmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Fakenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Felixstowe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Frome	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Glossop	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gosport	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Great Yarmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harpenden	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hatfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hednesford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hereford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Herne Bay	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hunstanton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Huntingdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Isle of Wight	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
King's Lynn	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leighton-Buzzard	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Littlehampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Liverpool	1/10	1/10	1/10	1/11	1/10	1/10	1/9½	1/4½
Llandudno	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London:								
12 m. radius	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/4
12-15 m. radius	1/8½	1/8½	1/8½	1/8½	1/8½	1/8½	1/7½	1/3½
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lowestoft	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Macclesfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Malvern	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Margate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Market Harb'rough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Matlock	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Melton Constable	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Melton Mowbray	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newark	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-ur-Lyme	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
New Forest	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Nuneaton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Paignton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ramsgate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redcar	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Redditch	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Reigate	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Retford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ripon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Saffron Walden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sawbridgeworth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Saxmundham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sevenoaks	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stevenage	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stowmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Stratford-on-Avon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stroud	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swaffham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2
Tamworth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Taunton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Thetford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Torquay	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Trowbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wallsend	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warminster	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Wells (Norfolk)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Weston-sup.-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Whitby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wisbech	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Woodbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worthing	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wrexham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wroxham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wymondham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

For rates of wages in the Building Trade in Scotland, see page 576.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

OCTOBER 8.

Belfast.—Roof.—Water tower roof at Purdysburn Villa Colony, Saintfield-rd., for Mental Hospital Committee. J. Harper, secretary.

Bury.—Garages.—At Fernhill-yard, for T.C. J. A. Settle, B.E. Dep. 10s.

Daventry.—Houses.—Pair of non-parlour houses at Everdon, for R.D.C. J. B. Williams, architect.

Dublin.—Building.—Monastery at Marino, Dublin, for Christian Brothers. W. H. Byrne & Son, architects, 20, Suffolk-st. Dep. £3 3s.

Eccles.—Lighting.—Installation of electric light wiring and fittings in 66 houses to be erected in Edison-rd., Patricroft, for T.C. Borough Electrical Engineer. Dep. £1 1s.

Edinburgh.—Joinery.—Fitting up existing buildings to be used as a store, at Craigleith Hospital, for P.C. J. M. Johnston, F.R.I.B.A., 47, Charlotte-st., Leith. Dep. £1 1s.

Falmouth.—Hospital.—New hospital. Cowell, Drewitt and Wheatly, A.R.I.B.A., Mansion House, Truro, architects.

Great Yarmouth.—Painting.—External decoration of 32 houses on Alexandra-av., Barnard-av., and Royal-square, and 16 houses on Common-lane, Southtown, for C.B. S. P. Thompson, B.E.

Halifax.—Painting.—External of library and museum at Bankfield, for C.B. B.E., Crossley-st. Dep. £1 1s.

Leicester.—Lighting.—Electric lighting of Abbey pumping station, for T.C. City E. Dep. £1.

Looe (Cornwall).—Decorations.—At Guildhall, for U.D.C. Surveyor. Dep. £2 2s.

Nuneaton.—Convenience.—Ladies' convenience in Bond-st., for T.C. R. C. Moon, B.E. & S. Dep. £2 2s.

Stockbridge.—Cottages.—Two cottages in parish of King's Somborne, for R.D.C. H. S. Sawyer, architect, Queen Anne-chambers, Winchester. Dep. £1 1s

Walsingham.—Cottages.—4 at Hindringham; 4 at Sharrington; and 6 at Swanton Novers, for R.D.C. W. H. Moffatt, E. & S., Bridge-st., Fakenham. Dep. £1 1s. each.

Warwick.—Offices.—New county offices, for C.C. A. C. Bunch, F.R.I.B.A., C.A., 27, Binswood-av., Leamington. Dep. £2 2s.

West Bromwich.—Houses.—12 on land in Witton-lane Hill Top, for C.B. A. D. Greatorex, B.S.

Wicklow.—Heating.—At new Convent Building at County Home, Rathdrum, for County Board of Health and Public Assistance. Jones & Kelly, architects, 17, South Frederick-st., Dublin.

OCTOBER 9.

Barnes.—Cottages.—Pair of semi-detached cottages at electricity sub-station, Ullswater-rd., Ferry-rd., for U.D.C. F. P. Kindell, E. & S. Dep. £5 5s.

Basingstoke.—Telephone Exchange.—Erection of, at Basingstoke, for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., Westminster, S.W.1. Dep. £1 1s.

Bradford.—Houses.—240 on Thornton-rd. and Wheatley-lane, for T.C. City Architect.

Cork.—Houses.—6 houses at Kinsale, Co. Cork, for Irish Sailors' and Soldiers' Land Trust. R. E Reckerson, Chief Clerk, 50, Upper Mount-st., Dublin. Dep. £5 5s.

Enfield.—Public Conveniences.—Erection of two, in Ponders End Pleasure Ground, High-st., Ponders End, Middlesex, for the Enfield U.D.C. H. R. Crabb, Engineer and Surveyor, Public Offices, Enfield Dep. £2 2s.

Hornchurch.—School.—Erection of, for the Essex County Council. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford. Dep. £2 2s. F. H. Owers, County Accountant, Duke-st., Chelmsford.

Ingleton.—Installation.—Low-pressure hot water at new school, for West Riding E.C. Education Department, County Hall, Wakefield.

Liverpool.—Conversion.—Of store adjoining 28, Myrtle-st., into shop, and rearrangement of sanitary accommodation, for T.C. Land Steward and Surveyor.

Macduff.—School.—Infant school, for Banff E.C. J. Wood, A.R.I.B.A., architect, Education Office, Buckie.

Nottingham.—School.—Central school for girls, Gamston-crescent and Perry-rd., Sherwood, for T.C. T. Wallis Gordon, City E. & S. Dep. £2.

Wakefield.—Houses.—24 at Middlestown, 8 at Kirkhamgate, 20 at Sharlston, for R.D.C. Massie & Holdsworth, architects and surveyors, Yorkshire Buildings, Wood-st. Dep. £1 1s.

OCTOBER 10.

Edinburgh.—Exchange.—Telephone exchange at Granton, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh. Dep. £1 1s.

Freshwater (I. of W.).—Convenience.—At Moa-place, for R.D.C. W. A. Cole-Adams, A.R.I.B.A., 30, Pyle-st., Newport, I. of W. Dep. £2 2s.

Hawarden.—Electrical Wiring.—Isolation Hospital at Pentrobin, Buckley, for R.D.C. A. K. Wroe, clerk.

Ireland.—Building.—National school at Loughnure, Co. Donegal; national school at Meenagowan, Co. Donegal; enlarging Ballinamore national school, Fintown, Co. Donegal; and national school at Newcastle, Saggart, Co. Dublin, for Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £1 each.

Kirkburton.—Plastering.—For operating theatre at Storthes Hall Mental Hospital, Kirkburton, near Huddersfield, for West Riding C.C. W. E. H. Burton, architect and engineer, Mental Hospitals Board Offices, Wakefield.

London.—Lifts.—Structural alterations to an existing lift well and the provision of a new electric stretcher lift in the maternity wards at St. Andrew's Hospital, Bromley-by-Bow, E.3, for the Poplar Board of Guardians. Harley Heckford, M.Inst.C.E., B.E. and S., Council offices, High Street, E.14. Dep. £2 2s.

St. Boswells.—Offices.—Painter work in connection with new education offices, Newtown St. Boswells, for Roxburgh E.C. Reid & Forbes, architects, 7, Ainslie-place, Edinburgh.

Sheffield.—Houses.—Wybourn Estate, for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

Storthes.—Conservatory.—At Storthes Hall Mental Hospital, for West Riding C.C. W. E. H. Burton, architect and engineer, Mental Hospitals Board Offices, Wakefield.

***Tunbridge Wells.**—New Hospital.—Erection of a new hospital at Tunbridge Wells for the Tunbridge Wells and Counties General Hospital and Eye and Ear Hospital. Drower & Brighton, surveyors, 28, Victoria-st., Westminster, S.W.1. Dep. £5 5s.

Uckfield.—Post Office and Telephone Exchange.—Erection of, at Uckfield, for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., Westminster, S.W.1. Dep. £1 1s.

OCTOBER 11.

Barnsley.—Rebuilding.—Pulling down and rebuilding of Hope Inn, Cliffe Bridge, for Clarkson's Old Brewery (Barnsley), Ltd. Dyson, Cawthorne & Coles, architects and surveyors, 10, Regent-st.

Bootle.—Houses.—154, on land south of Northfield-rd., for C.B. B.E. and S. Dep. £2 2s.

Brighton.—Demolition, Alterations, etc.—Pulling down a tall chimney shaft and carrying out extensive alterations and additions at the Electric Light Station in North-rd., for the Brighton C.B. Wm. H. Overton, F.R.I.B.A., 38 and 39, West-st., Brighton. Dep. £5 5s.

Bromley, Kent.—Houses.—Erection of 91 (in two contracts of 51 and 40 houses respectively), on estate at Southborough, for the Bromley B.C. Fred. H. Norman, T.C., Municipal Offices, Bromley. Dep. £2 2s.

***Cardiff.**—Heating, etc.—Heating, plumbing, electric lighting, electric lifts, structural steel work, iron staircases, railings, etc., iron windows and casements, for B.G. R. Stephenson, clerk, 11, Park-place.

Dublin.—Installation.—Of electrical wiring in new church and other buildings on St. Patrick's Purgatory, Lough Derg, for Venerable Dean Keown. MacEntee & O'Kelly, consulting engineers, 23, Upper O'Connell-st., Dublin. Dep. £3 3s.

Hull.—Fencing.—Wood fencing at Hall-rd. school site, for E.C. Director of Education. Dep. £1 1s.

Kildare.—Reconstruction.—Of Castledermot Courthouse, for Kildare C.C. J. Rorke, C.S., Courthouse, Naas. Dep. £2 2s.

Ireland.—Building.—Adaptation of building for Garda Siochana at Ballylongford, Co. Kerry; reconstruction of building for Garda Siochana at Dingle, Co. Kerry; erection of national school at Maghera, Co. Clare; erection of national school at Tierlahood, Co. Cavan; and completing reconstruction of Mullingar Garda Siochana Station, Co. Westmeath, for Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £1 each.

Littlehampton.—Conveniences.—At Sluice Cottage on Sea Front, for U.D.C. L. G. Dashper, S.

Newton Abbot.—Alterations.—At Town Hall Cottage, for U.D.C. C. D. White, S.

Ramsbottom.—Wall.—Concrete retaining wall alongside River Irwell at Nuttall Park, for U.D.C. A. Plunkett, E and S.

Shorne.—Villa.—Villa at Shorne. E. J. Hammond, L.R.I.B.A., architect, 21, Balmoral-rd., Gillingham.

OCTOBER 12.

Armagh.—Reconstruction.—Of Middletown R.U.C. Barrack, Co. Armagh, for Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-square West, Belfast. Dep. £1.

Belfast.—Additions.—Also alterations to Malone Public Elementary school, Balmoral-av., for C.B. Education architect, Victoria-st. Dep. £2 2s.

Dewsbury.—Garage.—Garage, offices, etc., at George-st. depot, for C.B. H. Dearden, A.R.I.B.A., B.S

Dublin.—Stations.—Erection of station for the Garda Siochana at (1) Cloyne, Co. Cork, (2) Glenfarne, Co. Leitrim, and (3) Doonbeg, Co. Clare, for Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works. Dep. £1 each.

Ireland.—Building.—Alterations to Stradbally Garda Siochana Station, Co. Waterford, and adaptation of building for Garda Siochana at Muinebeag (Bagenalstown), Co. Carlow, for Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £1 each.

Whitehaven.—Conversion.—Of old infirmary into a central school, for T.C. B.E. & S. Dep. £2 2s.

OCTOBER 13.

Abertillery.—Centre.—Mining centre at Springfield, for Monmouthshire E.C. J. Bain, F.R.I.B.A., County Hall, Newport. Dep. £2 2s.

Bristol.—Houses.—56, on Fishponds housing site, and three workshops at Sea Mills, Knowle, and Fishponds housing sites, for T.C. L. S. McKenzie, City E. and S., 51, Prince-st. Dep. £2.

Machynlleth.—Reconstruction.—Of existing dam at Council's reservoir at Esgaireira, Llanwrin, and provision of filter plant and erection of filter house, for U.D.C. H. B. Ward, chartered civil engineer, Commerce-chambers, 15, Lord-st., Liverpool. Dep. £3 3s.

Nottingham.—Painting.—Of iron railings round Memorial Arch-gardens, Victoria-embankment, for T.C. T. Wallis Gordon, City E. & S. Dep. £1.

Rothwell.—Wall.—580 sup. yds. of retaining and boundary stone walls, in connection with road improvement scheme at Town End, Lofthouse, Leeds and Wakefield main road, for U.D.C. J. Southwart, S. Dep. £1 1s.

Wirral.—Cottages.—Pair of workmen's cottages at Saughall Massie, for R.D.C. S.

OCTOBER 15.

Cardiff.—Additions.—Also alterations at Corporation abattoirs, Roath, for T. C. H. Whitaker, M.Inst.C.E., City Engineer & Architect. Dep. £2 2s.

Darlington.—Tower.—Cooling tower with foundations and tank, for Corporation. Borough Electrical Engineer. Dep. £1 1s.

Farnworth.—Painting.—At Electricity Department, for U.D.C. F. Ashton, E. and S. Dep. £2 2s.

Formby.—Mortuary.—At depot, Freshfield-rd., for U.D.C. E. K. Gollan, E. & S.

***Hampton.**—Houses.—Erection of 91 at Priory-rd., Hampton, Hill Field Housing estate, for the Hampton U.D.C. Sidney H. Chambers, S., Public Offices, Hampton, Middx. Dep. £2 2s.

***Hampton.**—Sports Pavilion.—Erection and completion of, at the Wensleydale-rd. recreation ground, Hampton, for the U.D.C. Sidney H. Chambers, S., Public Offices, Hampton, Middx. Dep. £2 2s.

***Ilford.**—Caretaker's Lodge.—Erection of, at Benton Shool, Benton-rd., Ilford, for the Corporation. H. Shaw, Architect to the E.C., Town Hall, Ilford. Dep. £2 2s.

Knaresborough.—Houses.—6, in connection with Hope-st. improvement scheme, 1926, for U.D.C. S. Blenkhorn, architect, High-st.

Knaresborough.—Pens.—Pens in cattle market, for U.D.C. S.

Nuneaton.—Houses.—115 on Attleborough (No. 2) housing estate, for T.C. H. N. Jepson, A.R.I.B.A., Queen's-buildings. Dep. £3 3s.

Seaham Hall.—Room.—Waiting-room for violet ray department at Seaham Hall Sanatorium, for Durham C.C. W. & T. R. Milburn, architects, 19, Fawcett-st., Sunderland. Dep. £1 1s.

Stockton-on-Tees.—Painting.—Also renovation of Trimdon Grange, Stillington and Preston-on-Tees Council Schools, for Durham County E.C. M. Anderson, district clerk, District Education Office, 23, Dovecot-st.

OCTOBER 16.

Belfast.—Walls.—Boundary walls, gates, and railings in connection with widening of Belmont-rd. at property known as "Clonallon," for C.B. City S. Dep. £1 1s.

Cardiff.—Painting.—Internal at head post office, for H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Dublin.—Reconstruction.—Of General Record Repository at Four Courts, Dublin, for Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £5.

Leeds.—Houses.—166 on Henconner-lane housing estate, for T.C. W. T. Lancashire, City E.

Leeds.—Premises.—Demolition and re-erection of premises to be occupied by Lloyds Bank, Ltd., Vicar-lane, for T.C. Messrs. Kitchen, Parish & Ledgard, architects, Vicar-lane.

Sunderland.—Houses.—52 four-roomed houses at Ford estate, for C.B. B.E. Dep. £2 2s.

OCTOBER 17.

Grangegorman.—Building.—For (a) extension to male department hospital, and (b) construction of nurses' recreation rooms, at Mental Hospital, for Committee. P. J. Munden, F.R.I.B.A., 28, South Frederick-st., Dublin. Dep. £3 3s.

Old Fletton.—Police Court.—At Old Fletton, for Huntingdon Standing Joint Committee. C.S.

Poole.—Reslating.—Roof, executing repairs to and repainting exterior of old library, High-st., for T.C. E. J. Goodacre, B.E.

Southend-on-Sea.—Alterations.—To Southend-on-Sea head post office, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

OCTOBER 18.

***Bromley, Kent.**—Branch Library.—Erection of, at King's Meadow Recreation Ground, Bromley. Fred H. Norman, T.C., Municipal Offices, Bromley, Kent. Dep. £2 2s.

London, S.W.—Employment Exchange.—Erection of, at Walham Green, S.W., for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

London, S.W.—Fitter's Shop, Office and Mess Room.—Construction of, at the Stockwell Depot, Stockwell-rd., for the Lambeth Borough Council. Osmond Cattlin, M.Inst.C.E., B.E., Town Hall, Brixton-hill, S.W.2.

Thorne.—Lighting.—Electric light at grammar school, for West Riding E.C. Education Department, County Hall, Wakefield.

Willesden.—New Branch Library.—Erection of, at Olive-rd., Cricklewood, for the Dist. Council, F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-rd., Kilburn, N.W.6. Dep. £2 2s.

Worcester.—Extensions.—Of goods shed, etc., at Shrub Hill Station, for the Directors of the Great Western Railway Co. Office of the Engineer at this station. Dep. £2 2s.

OCTOBER 19.

Falmouth.—New Post Office and Telephone Exchange.—Erection of, at Falmouth, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Hertford.—Tower.—New water tower, for T.C. B.S. and H. Dep. £10 10s.

***Northampton.**—Offices.—Additional public and office accommodation at the County Buildings, Northampton, including the adaptation of the Old County Gaol buildings adjoining, for the Northampton C.C. The Clerk, County Hall, Northampton. Dep. £2 2s.

OCTOBER 20.

Brynn.—House.—Farm dwelling-house. W. F. Cawood, Tregothnan Office, Truro.

Reading.—Flats.—Erection of 18 in Silver-st., Reading, for the Housing and Town Planning Committee of Reading. Housing Architect, Municipal Buildings, St. Lawrence's Churchyard. Dep. £2 2s.

OCTOBER 22.

Greenwich.—Reinforced concrete lining of coal bunkers.—At the Greenwich Power Station for the L.C.C. General Manager of Tramways, Tramway Offices, Victoria Embankment. Dep. £2 by cheque or draft to the order of the L.C.C.

London, S.E.—Various Works.—Alterations and additions to and the conversion of Block "C" of the Lewisham Hospital to form receiving and casualty wards and out-patients' dept., for the Guardians of the Lewisham Union. W. R. Owen, Clerk to the Guardians, Guardians' Offices, 394, High-st., Lewisham, S.E.13. Dep. £5 5s.

***Wimbledon.**—Buildings.—Erection of new cemetery buildings and central nursery, comprising mess room, drying room, potting and other sheds, fuel stores, lavatories, etc., for the Wimbledon B.C. Borough Engineer's Office, Town Hall.

OCTOBER 23.

Maldon.—Dwellings.—24 in Colchester-rd., Heybridge, and 6 near the station, Wickham Bishops, for R.D.C. Wm. Almond, S.

Morley.—House.—For caretaker, at Secondary school, for West Riding E.C. Education Department, County Hall, Wakefield.

OCTOBER 24.

London.—Painting and Other Works.—To the interior of the dining hall at St. Leonard's House, 213, Kingsland-rd., E.2, for the Guardians, parish of St. Leonard, Shoreditch. F. Danby Smith, F.R.I.B.A., Parliament-mansions, S.W.1. Dep. £2

OCTOBER 27.

Stoke and Wolstanton. — Chimney. — Chimney-stack 175 ft. high, 5 ft. 6 in. internal diameter, on a prepared site at London-rd. Institution, near Newcastle, Staffs, for B.G. T. Wood, clerk, Union Offices, Stoke-upon-Trent. Dep. £1.

OCTOBER 29.

Enfield.—Extensions.—Building of two extensions to the Hospital at World's End, Winchmore Hill, for the Enfield and Edmonton Joint Hospital Board. H. R. Crabb, A.R.I.B.A.

Margate.—Alterations.—At Thanet school, St. Peter's Footpath, to convert premises into public elementary school, for T.C. E. A. Borg, B.E. & S., 13, Grosvenor-place. Dep. £2 2s.

OCTOBER 30.

Devon.—Buildings.—Erection of show yard, grand stand, cattle, implements and other sheddings, etc., at South Molton, for the Devon County Agricultural Assn. Percy Whitton, Sec., 20, Queen-st., Exeter.

OCTOBER 31.

Whitland.—Heating.—Heating apparatus at St. Mary's Church. F. J. Kerslake, clerk to St. Mary's Church Council.

NO DATE.

Barrow-in-Furness.—Painting.—Outside of Roose Institution and Infirmary, for B.G. F. W. Taylor, clerk, 40, Cornwallis-st.

Brecon.—Heating.—Installation of low-pressure hot-water heating system at Colbren, Cynlais (mixed) and Ynisedwyn (infants') Council schools, for Breconshire C.C. H. C. C. Strickland, A.R.I.B.A. C.A.

Buxton.—Alterations.—To Devonshire Park chapel, for First Church to Christ Scientist, Buxton. C. Flint, L.R.I.B.A., architect and surveyor, The Quadrant.

Dewsbury.—Demolition.—Garage in Foundry-st. E. A. Golby, Ltd.

Dundee.—Wall.—Wall tiling, etc., at underground convenience at Market-st., for T.C. G. Baxter, City B., 91, Commercial-st.

Horsforth.—Demolition.—Of stone-built factory premises. Bramham & Gale, 19, East-parade, Leeds.

Kilbride.—Church.—At Kilbride, Co. Meath. Rev. ML. Conlan, P.P., Dunboyne, Co. Meath.

***London.**—New Building.—Builders willing to tender without quantities. Robins, Gore & Mercer, surveyors, 205, Wardour-st., Oxford-st., W.1.

Warton.—House.—For R. Smalley. F. Jackson, architect and surveyor, Hall Croft, Carnforth.

MATERIALS, etc.

OCTOBER 8.

Bexley.—Granite Kerb.—For U.D.C. W. T. Howse, S.

Warwick.—Slag.—400 tons of 2½ in., 270 tons 1¼ in. and 70 tons ⅜ in. tarred slag, for R.D.C. C. H. Passman, clerk, Bedford-st., Leamington.

OCTOBER 9.

London.—Builder's Materials, etc.—For G.W.R. P. R. E. Davis, secretary, Paddington Station, W.2.

OCTOBER 15.

London.—Lead.—For Bombay, Baroda and Central India Rly. Co. S. G. S. Young, secretary, White Mansions, 91, Petty France, S.W.1.

OCTOBER 20.

Glasgow.—Builder's Materials.—For P.C. M. A. Reynard, clerk, 266, George-st., C.1.

OCTOBER 22.

Hertford.—Highway Materials.—For T.C. B.E. and S.

ENGINEERING, IRON AND STEEL

OCTOBER 11.

Brighton. — Constructional Steelwork. — Erection of, in connection with alterations to the Electric Light Station in North-rd., Brighton, for the Brighton C.B. Wm. H. Overton, F.R.I.B.A., 38 and 39, West-st., Brighton. Dep. £5 5s.

OCTOBER 12.

Blaby.—Sewerage.—3,000 yds. of 6 in., 7 in., 9 in. and 12 in. stoneware pipe sewers, together with manholes, and of pumping station, and rising main and sewage purification works, in Parish of Countesthorpe, for R.D.C. Pick, Everard, Keay & Gimson, engineers, 6, Millstone-lane, Leicester. Dep. £1 1s.

OCTOBER 16.

Ballycastle.—Reservoir.—Covered reservoir of reinforced concrete, to hold 335,000 gallons, on floor of existing reservoir, with all necessary appurtenant works, for U.D.C. Swiney & Croasdaile, engineers, Avenue-chambers, Belfast.

Doncaster.—Sewerage.—Alterations to existing settling tanks, new settling tanks, screen house, pump houses, percolating filters, humus tanks, sludge lagoons, effluent channels, outfall culvert, sludge mains, roads, etc., at Balby sewage works, for C.B. F. Oscar Kirby, B.E., 2, Priory Place. Dep. £5 5s.

Godstone.—Drainage.—Detritus tanks, settlement tanks, filter beds, humus tanks, sludge beds, storm tank and lines of pipes, and for making alterations to existing works at sewage treatment works, about 1 mile from Hurst Green Halt, for R.D.C. John Taylor & Sons, engineers, Caxton House, Westminster, S.W.1. Dep. £5.

London.—Steel.—1,655 tons (approx.) steel material, and 5,920 galvanised sheets, plain and corrugated, for Madras and Southern Mahratta Rly. Co. Directors, 25, Buckingham Palace-rd., S.W.1.

OCTOBER 18.

Cape Town.—Bridgework.—Structural bridgework, for South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 6816.)

OCTOBER 20.

Cairo.—Bridges.—Two bridges, for Egyptian Government. Department of Overseas Trade, 35, Old Queen-st., S.W.1. Ref. No. A.X. 6882.

OCTOBER 22.

Chesham.—Tank.—Settlement tank, twelve sludge beds, pumping mains, small pumping station, pipe connections and other works at sewage works, for U.D.C. John Taylor & Sons, engineers, Caxton House, Westminster, S.W.1. Dep. £5.

OCTOBER 24.

London.—Steelwork.—251 tons structural steelwork for millwright shop, for Madras and Southern Mahratta Rly. Co., Ltd. Directors, 25, Buckingham Palace-rd., S.W.1.

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OCTOBER 25.

Johannesburg.—Steelwork.—For South African Railways and Harbours Committee. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 6752.)

OCTOBER 29.

Margate.—Widening.—Of St. Peter's-rd. railway bridge, for T.C. E. A. Borg, B.E. & S., 13, Grosvenor-place. Dep. £2 2s.

NOVEMBER 12.

Australia.—Steelwork.—Steel chimneys and dust eliminators, for Yallourn Power Station, for State Electricity Commission of Victoria. W. J. Price, acting secretary, 22-32, William-st., Melbourne, Australia.

ROAD, SEWERAGE, AND WATER WORKS

OCTOBER 8.

Beaconsfield.—Sewer.—For (1) trunk surface water sewer, approx. 15,000 yds. of 18-in. and 15-in. concrete tube sewer and appurtenant works, and sewering and making-up and lighting Gregories-rd., for U.D.C. J. H. Crosby, S. & E. Dep. £1 1s.

Glasgow.—Extension.—Of Aikenhead-rd. and diversion of Menock-rd., for Corporation. D. Stenhouse, T.C.

Urmston.—Sewerage.—Laying approximately 600 ft. of 9-in. stoneware pipe sewer and manholes, and 680 ft. of surface water drains at Granville-rd. estate, for U.D.C. J. Heath, S.

OCTOBER 9.

Crewe.—Making-up.—Also sewering of back passage running from passage rear of Middlewich-st. to Sefton-av., being approximately 600 lin. yds. in length, for T.C. E. G. Timbrell, B.E. & S. Dep. £2 2s.

Easington.—Road.—Widening and improvement of Seaham Colliery-rd., New Seaham, for R.D.C. R. Urwin Harper, S.

Lanchester.—Sewer.—Laying 330 yds 9-in. sewer, etc., at Delves Bungalows, near Consett. S.

Manchester.—Asphalt.—Rock asphalt for roofs and asphalting and tar spraying for paths required at Crumpsall Institution, Crescent-rd., Crumpsall, for B.G. Hargreaves, Superintendent of Works, Union Offices, All Saints.

Southend-on-Sea.—Sewerage.—Supplying and laying of about four miles of 9 in. cast-iron pipe sludge main, together with valves, etc., and sundry concrete and earthworks on sludge lands in Parish of Barling, for C.B. Dodd & Watson, engineers, County-chambers, Corporation-st., Birmingham. Dep. £2.

Southgate. — Making-up. — Of Woodland-way, Hawthorn-av., Grenoble-gardens (section No. 2), Upsdell-av. (section No. 2), Berkshire-gardens (section No. 2), Lytton-av., for U.D.C. R. Phillips, S. Dep. £2.

OCTOBER 10.

Bury.—Surfacing.—With tar macadam of part of Bury Old-rd., Ainsworth, for R.D.C. A. W. Blomeley, clerk.

Guildford.—Improvements.—Of Old Palace-rd., for T.C. J. W. Hipwood, B.E.

Swansea.—Paving.—Supplying and laying about 42,000 sq. yds. of asphalt paving on carriageways and footways within the borough, for C.B. J. Richard Heath, B.E. & S.

OCTOBER 11.

Guildford.—Making-up.—Of Weston-rd. and Parkhurst-rd., for T.C. J. W. Hipwood, B.E. Dep. £1 1s.

OCTOBER 12.

Glasgow.—Sewer.—12-in. pipe outfall sewer on Knightswood area 9, for Corporation. D. Stenhouse, T.C.

Kingsbury. — Making-up. — Of Chalkhill-rd., approx. length 1,000 yds., and Barnhill-rd., approx. length 600 yds., for U.D.C. R. C. N. Newport. Dep. £3 3s.

Lisburn.—Resurfacing.—Portions of Wesley-st., Low-rd., Grand-st., and Hillsborough Old-rd., for U.D.C. Town S. Dep. £1.

Twickenham.—Paving.—Surfacing the playground of the new infants school, Nelson-rd., an approximate area of 2,180 yds. super., with limestone tar-paving or other approved material, for E.C. B.E. & S.

OCTOBER 13.

Broadstairs and St. Peter's.—Paving.—Supplying and laying 3-in. limestone tar paving, approximate area 1,100 sq. yds., in St. Peters-rd., Broadstairs, for U.D.C. H. Hurd, S.

Bucklow.—Sewers.—Construction of necessary 9-in. and 6-in. dia. piped sewers, together with valves, manholes, etc., and for excavation, formation and laying of foundations for roads on Royle Green housing site, Northenden, for R.D.C. R. Curtis Cordon, E. and S., 24-26, Station-buildings, Altrincham. Dep. £1 1s.

OCTOBER 16.

Carshalton.—Making-up.—Of Crossways, for U.D.C. R. S. Davey, S. Dep. £2.

Leicester.—Footways.—Completion of footways and carriageways on Braunstone, Section 2, for T.C. J. S. Fyfe, A.R.I.B.A., Housing Architect, Wyggeston House, 18, Highcross-st. Dep. £2 2s.

Tottenham.—Making-up.—Also surface water drainage of Downhills Park-rd., from Cambridge Arterial-rd. to Water Tower, for U.D.C. E. Dep. 10s. 6d.

OCTOBER 17.

Birmingham.—Making-up.—Of Gillhurst-rd., for T.C. Herbert H. Humphries, City E. & S. Dep. £2.

OCTOBER 19.

Hertford.—Mains.—Supplying and laying of approximately 2,300 yds. of 10-in., 8-in. and 6-in. internal diameter water mains and other works connected therewith, together with 10-ft. road and 9-in. overflow drain from the New Water Tower, for T.C. B.E. and S. Dep. £5 5s.

OCTOBER 22.

Mitcham.—Making-up.—Of Middle-way, Bank-av., Portland-rd., for U.D.C. S.

NO DATE.

Dunbarton.—Widening.—Widening and improvement of one and a quarter miles of Gareloch and Loch Long-rd. extending from Admiralty jetty, Arrochar, to Loin water bridge, involving 11,000 cubic yds. or thereby of filling to be obtained by widening the Arrochar and Tarbet-rd. between Arrochar and Tarbet, for C.C. J. Andrew, engineer, District Road Surveyor, 88, College-st. Dep. £5 5s.

Cardiff.—Roads.—Formation of roads on Rumney Hill estate, near Cardiff. Henry Budgen & Co., 95, St. Mary-st., Cardiff.

Auction Sales Tenders, etc.

OCTOBER 8.

***London.**—E. Fryett will sell, by order of Messrs. J. Carter and Co., on the premises at the Arches, 12, Chamber-st., E.1, hand bookmaking machines, office fittings, etc. Auctioneers, 24, Holborn, E.C.1.

OCTOBER 8 and 9.

***Loughton.**—Protheroe & Morris will sell at the Forest Nurseries, Loughton, Third Annual Sale of Roses, Fruit Trees, Shrubs, etc. Auctioneers, 67 and 68, Cheapside, E.C.2.

OCTOBER 9.

***London, N.**—Joseph Hibbard & Sons will sell, without reserve, by Order of the Owners, removed for convenience of sale at their sale room, 15, Newington Green, Islington, N.16, Stock of Timber and Doors. Auctioneers as above.

OCTOBER 11.

***King's Bromley Manor.**—Winterton & Sons, instructed by The Looms Salvage Co., Ltd., will sell at King's Bromley Manor, building materials, etc. Auctioneers, St. Mary's-chambers, Lichfield.

***Kingston-on-Thames.** — Nightingale, Page & Bennett amalgamated with White & Sons (Dorking), will sell at The Sun Hotel, Kingston-on-Thames (unless previously sold), business site and premises, 29-35, High-st. Auctioneers, Eagle-chambers, Kingston-on-Thames.

OCTOBER 16.

London.—Hampton & Sons will sell by Order of Executors, Freehold Building Estate known as the Grove House Estate, Chiswick. Auctioneers, 20, St. James'-square, S.W.1.

OCTOBER 16.

Oldbury.—Joseph Hibbard & Sons will sell without reserve, by order of Messrs. T. & E. Lowe, Ltd., at the saw mills, Rood End-rd., Oldbury, near Birmingham, saw mill plant and English timber. Auctioneers, 15, Newington-green, Islington, N.16.

Pinner.—Hampton & Sons will sell (unless previously sold) freehold property, "The Hall" Estate, Pinner. Auctioneers, 20, St. James'-square, S.W.1.

OCTOBER 23.

***London.**—Henry Butcher, Hall and Co., will sell, by order of Messrs. Lole & Co., Ltd. (expiration of lease), in lots on the premises, building plant and material, woodworking machinery, office furniture. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

***Southampton.**—Leopold Farmer & Sons, in conjunction with Richard Austin & Wyatt, will sell in lots, by order of John Christopher, Ltd. (in consequence of having sold the property), on the premises, woodworking plant and machinery, engines, cart horses, etc. Auctioneers, L. F. & Sons, 46, Gresham-st., E.C.2, and R. A. and W., Bishop's Waltham, Hants.

Public Appointments

OCTOBER 10.

Chester.—Fully qualified architectural assistant required in the County Architect's Department, by the Cheshire C.C. F. Anstead Browne, F.R.I.B.A., C.A., Newgate-st., Chester.

OCTOBER 13.

***Leeds.**—Clerk of Works required. H. Kingsley Pearce, General Manager, the General Infirmary, Leeds, endorsed 'Clerk of Works."

OCTOBER 15.

***Oxford.**—Assistant required to take charge of the housing maintenance work required by the Oxford City. City Estates Surveyor, Town Hall, Oxford.

***Preston.**—Temporary Architectural Assistant in the Borough Engineer and Surveyor's Office required by the Preston B.C. W. Platt, B.E. & S., Town Hall, Preston.

OCTOBER 20.

***Stafford.**—Town Planning and General Engineering Assistant required by the Stafford B.C. Wm. Plant, B.S., Borough Hall, Stafford.

NO DATE.

London.—Clerk of Works wanted to superintend erection of new Operating Theatre, North Middlesex Hospital, Edmonton. Clerk to the Guardians, Edmonton Union, Board Room, 77, Bridport-rd., N.18.

***Shanghai.**—Assistant Architect required in the Public Works Department by the Shanghai Municipal Council. Council's Agents, John Pook & Co., 68, Fenchurch-st., London, E.C.3.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians, B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education. M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

Barking Town.—U.D.C. passed plans:—18 houses, Lyndhurst-gardens, for H. Samborough; warehouse, Abbey-rd., for British East Light, Ltd.; 6 houses, Shirley-gardens, for J. R. Leftley; alterations to 21, East-st., for North, Robin & Wilsdon; 62 houses, Wilmington-gardens, for E. Glenny & Son; men's convenience in Hertford-rd., for Gas, Light and Coke Co., Ltd.; alterations and additions to premises North-st., for London Co-operative Society, Ltd.; 39 lock-up garages in Cecil-av., for C. Gray; 5 lock-up garages, Hertford-rd., for Mrs. E. Baker.

Barnes.—C. S. Eyles, A.R.I.B.A., held inquiry for H.M. into U.D.C.'s application for Town Planning Scheme No. 2.

Bath.—B. of E. approved managers' proposals for alteration and extension of Harley-st. school.

Billingham.—U.D.C. gave approval to construction of pumping station and reservoir for Synthetic Co.

Blean.—R D.C. been given sanction to borrow £32,200 for purpose of housing. Scheme to build 100 houses for employees at Chislet Colliery is thus brought considerably nearer fruition.

Bolton.—A bequest of £10,000 been made to Infirmary and £2,500 to building fund of Chorley Old Road Congregational Church.

Brentwood.—A new nurses' home at the Mental Hospital, at £21,927, has been recommended by the Committee of Visitors of Lunatic Asylums of Essex C.C.

Brightlingsea.—Council received plans from G. T. Morris, M.I.Struct.E., architect, for erecting a length of sea-wall from Sewer Point across the Batemans Tower on West Marsh Promenade, for purpose of enclosing a bathing pool and paddling and boating pond. His estimated cost of curved wall, exclusive of the necessary filling, is approximately £4,800, and for a straight sea-wall, £4,500.

Brighton.—Electricity Commisioners sanction to borrowing by T.C. of £10,700 for buildings and plant at Southwick Power Station.—Application is to be made to M.H. for sanction to borrowing £1,280 to defray cost of conversion of barn at New Barn Farm, Rottingdean, into cowstalls, etc.—Plans passed:—6 houses, Dyke-rd., E. B. Hayward; 6 houses, Osborne-rd., A. G. Lower; rebuilding "The Irish House," East-st., cinematograph, theatre and restaurant, 75-79, East-st., Savoy Cinemas, Ltd.; 3 lock-up garages, Russell-sq., Moores (B'ton), Ltd.; proposed lay-out, hotel and restaurant, Patcham-corner, H. A. Costerton.

Caerleon.—Governors of the Williams Charity at the Endowed School, Caerleon, received approval from B. of E. for new school and handicraft centre at Caerleon, at £12,000.

Carshalton.—U.D.C. passed plans:—26 houses, Denmark-rd., for Bannister & Harris; 5 houses, Sussex-rd., 50 houses, Warnham Court-rd., for J. M. Chappel, Ltd.; 6 houses, Waveley Way, for G. E. Curnick; revised lay-out for 3 houses, Banstead-rd., and house, West Way, in lieu of 4 houses, Banstead-rd., for Hardman Estates, Ltd.; 6 houses, Waverley Way, for S. Stenning; 4 houses and garages, Prior-av., for A. R. Garnett; 8 houses, Wales-av., for H. J. Sawyers; 3 pairs semi-detached houses, Prior-av., for H. A. Hawkins; pair of semi-detached houses, Pine Ridge, for P. W. Stock; 2 pairs of semi-detached houses and 3 garages, Barrow Hedges Way, for R. Purdue; 2 houses, Kaymoor-av., and 2 houses, Willis-av., for A. E. Pickering.

Chelmsford.—Essex C.C. sanctioned £30,000 for reconstruction of Chelmsford-Dunmow-rd.

Chelmsford.—T.C. appointed committee to consider purchase of approximately 46½ acres of land at Prentice's Farm, Springfield, for housing purposes.

Chesterfield.—M.H. held inquiry into Corporation's application for compulsory purchase of three acres of land in High-st., Old Whittington, for purpose of housing and street improvements.

Coventry.—T.C. passed plans:—4 houses, Lime Tree-av., for H. J. Dalton; engineer's workshop, Old Church-rd., for Courtaulds, Ltd.; shop premises, Burges, for Smarts, Ltd.; transformer house, 6, Old Church-rd., for Courtaulds, Ltd.; 5 houses, Holbrook-lane, for W. T. Harding; extension of works, Quinton-rd., for Valves, Ltd.; 10 houses, Wainbody-av., for C. E. Salt; shop premises, corner of Allesley Old-rd. and Maudslay-rd., for Coventry Co-operative Society, Ltd.; 6 houses, Butt-lane, Allesley, for Gazey Bros.; reconstruction work at "Opera House," Hales-st., for Bennett Theatres, Ltd.; 24 houses, Wainbody-av., for T. Bates & Son, Ltd.; 4 houses, Troughton-crescent, for F. A. Sutton; 4 houses, Moat-av., for C. Spiers; 4 houses, Butt-lane, Allesley, for Gazey Bros.; relief offices, London-rd., for B.G.; 4 houses, Beech Tree-av., for R. Davies; 4 houses, Coventry-st., for J. B. Harvey; 9 houses, Kenpas-rd., and house, Grasmere-av., for A. Barratt.

Dagenham.—U.D.C. passed plans:—Shops and dwellings at junction of Becontree-av. and Valence-av., Chadwell Heath, for E. Meredith.

Derby.—Proposals for extension of Derby School at cost of £35,000 been approved by E.C.—Corporation are to build 750 dwellings on a site adjoining Corporation estate at Allenton.

Dudley.—T.C. recommend erection of 126 houses on a site at Mouse-st., Netherton, and that tenders for erection be invited immediately the scheme been approved by M.H.

East Ham.—B.C. instructed B.E. to submit plans and estimates for erection of houses on vacant land in Lonsdale-av.

Edinburgh.—Negotiations are in progress between the recently formed "Saughtonhall Social and Athletic Association" and Corporation as to leasing of vacant piece of ground to south of Saughtonhall-av. for social and recreative benefit of residents.

Edmonton.—U.D.C. received M.H. sanction to loan of £111,930 for erection of 216 houses.

Elmham.—Mitford and Launditch R.D.C. recommend 6 houses in North Elmham.

Eton.—R.D.C. passed plans:—Flats and offices for Richings Park Estates, Ltd.; factory in Buckingham-av., for Slough Estates, Ltd.

Hailsham.—Housing Committee of R.D.C. decided to make inquiries at Hooe with view to purchase of suitable site for erection of 4 houses.

Hatfield.—Plans for proposed new Council offices, as prepared by P. C. Blow, been approved by R.D.C. Scheme will involve an expenditure of £8,000.

Hayes.—U.D.C. instructed surveyor to prepare plans and estimate of cost of building shops on Council's land fronting on Uxbridge-rd.

Heston and Isleworth.—U.D.C. passed plans:—Cartwright & Son, 6 houses, Hibernia-rd; C. Masey, theatre, London-rd., Hounslow; Nowell Parr, "The Warren Hotel," public-house, Hanworth-rd.; Perry Bros., 12 shops, Vicarage Farm-rd.; North Robin & Wilsdon, reconstruction of factory, Maswell-park, Hounslow; Roper, Son & Chapman, 3 shops and conversion of 2 houses into shops, Bell-rd.; P. Chase Gardener & Co., 10 houses, Woodlands-rd.. 2 houses, Heston-rd., 2 houses, Bath-rd.; R. J. Baldwin, factory and new road off Bath-rd.; Perrys (Ealing), Ltd., 4 houses, The Crossways; F. Perry & Sons, 4 houses, Inwood-rd.; J. Montgomery, 10 houses, Whitton Dean-rd.; J. E. Frankcom. 8 houses in blocks of 4, Hartham-rd.; P. Chase Gardener & Co., 8 houses, Barrack-rd., 80 houses, Kingsley-av. and Taunton-av., and 4 houses, Heston-rd.; W. Harbrow, Ltd., 12 houses, Summerhouse-av.; F. W. Ferris, 34 houses, Lulworth-av.; Roper, Son & Chapman, 2 houses, Gt. West-rd.; J. Montgomery, 74 houses, Whitton-dean; Whitton Park Estates, Ltd., 44 houses, Argyle-av.; Fox & Hibberd, 12 houses, Great West-rd.

High Wycombe.—T.C. passed plans:—Alterations to business premises, 15, Oxford-st., for T. Morris; additions to factory, Roseberry-av., for J. Hawkins & Sons; rebuilding business premises, 83, Easton-st., for C. Bridger; additions to chair factory, Dashwood-av., for C. P. Vine; 4 houses, Eaton-av., for C. Jefferson & Co.; 4 houses, Eaton-av., for Stevens Bros.; 4 houses, Eaton-av., for White Bros; dairy, Sands-rd., for W. C. Stockton; additions to factory, Eaton-av., for A. & F. Howland.

Ilford.—T.C. has bought North Hainault site for elementary school.

Ilford.—For adaptation of building as boys' secondary school, Essex E.C. recommend £715.

Keighley.—T.C. passed plans:—Waterhouse & Pickles, 3 houses, Braithwaite-rd.; Judson & Steel, 3 garages, Apsley-st.; Lewis Whitaker, 3 houses, Broomhill-av.

Lancaster.—T.C. decided to erect another 100 houses at £37,399.

Leicester.—City Council recommend that Council Chamber be enlarged to seat 100 members, and rearrangement of various offices. Estimated cost is £22,000, and adoption of scheme involved provision of suitable accommodation elsewhere for police quarters and education offices, at an additional estimated cost of £75,000.

London.—Essex C.C. approved £27,000 as Council's contribution for Victoria Dock-rd. construction.

London (Lambeth).—B.C. recommend that tenders be invited for the carrying out of work to two chapels at cemetery.—M.H. sanctioned borrowing of £2,119, for conversion of Tate (Central) Library to open access system.—Plans passed:—E. W. Wallis, lock-up garages on site at rear of houses on southern and eastern side of Knight's-hill; C. Barrett (Shopfitters), Ltd., garages at rear of 43 and 45, Carroun-rd.

London (Mitcham).—Mitcham is to have 287 new houses, and two new elementary schools.

London (Paddington).—B.C. passed plans:—Deacon & Allen, buildings in Westbourne-st.-mews; and W. F. Cave, for garage at 4, Biddulph-rd.

London (Wimbledon).—B.C. passed plans:—A. E. McKenzie, for electricity sub-station in Toynbee-rd., at rear of 20, Merton Hall-rd.; G. W. Beattie, Ltd., 2 shops with living accommodation over in Durnsford-rd.; G. W. Beattie, Ltd., 4

* See also our List of Contracts, Competitions, etc.

shops with living accommodation over in Durnsford-rd.; R. J. & J. S. Thompson, alterations to existing outbuilding at Royal Wimbledon Golf Club, Camp-rd.; Jas. Burges & Sons, Ltd., extension to factory, Hugh Stevenson, Ltd., Riverside-rd.; W. L. Walker, 5 houses in Grove-rd.

Lowestoft.—Plans been passed by Corporation for erection of artificial silk factory.

Lurgan.—Plans for picture house in Union-st. been passed.

Luton.—T.C. received sanction from M.H. to borrowing £64,659 for works of sewerage for Leagrave and Limbury.—B.E. prepared plan of suggested open-air swimming bath on Council's land off New Bedford-rd., opposite Wardown-pk.—Plans passed:—Sunman & Hewson, additional story, factory premises, Guildford-st.; H. C. James, Ltd., 4 houses and shops, Dunstable-rd.; E. G. Bell, 7 garages, Portland-rd.; E. L. Barber, 2 houses, Dunstable-rd.; Warren & Fountain, 2 houses and shops, Dunstable-rd.; A. & F. Higgins, factory premises, rear 23-29, Bute-st.; N. Hill, 8 houses, Sherwood-rd.; N. Hill, 3 houses, Carlton-crescent, and 3 houses Blenheim-crescent; W. D. Dyer, 4 houses, Carlton-crescent; N. Hill, 2 houses Carlton-crescent, and 2 houses Blenheim-crescent; F. Chesham, 4 houses, Sherwood-rd.; J. Frost, 8 houses, Seymour rd.; J. Frost, 2 houses Cutenhoe-rd., and 2 houses Seymour-rd.

Maidstone.—T.C. passed plans:—Gabriels Hill, additions to warehouse for Corfe & Son, Ltd.; Grove-rd., Free Church hall, for Maidstone and District Free Church Council; St. Peter's-st., extension of generating house, for Maidstone Gas Co.

Manchester.—T. Fogarty & Co., builders, 1, Tyson-st., Cheetham Hill, Manchester, had plans prepared for 20 houses on Grange-drive, Blackley.—Board of Management of Salford Royal Hospital, Chapel-st., proposing to erect laundry and boiler-house at nurses' home. Plans by P. Barker, F.R.I.B.A., architect, 32, King-st., West Manchester, in collaboration with Dr. P. A. Worthington, M.S., F.R.I.B.A., 178, Oxford-rd.—Groves & Whitnalls, Ltd., of Regent Brewery, Salford, proposed alterations and additions to Smithfield Vaults public-house, Swann-st., Manchester, and Swann Inn, Rochdale-rd. Plans by Pendleton & Dickinson, architects, 16, Brazennose-st.—Certain interior alterations are to be made to St. Hilda's School at Old Trafford, and buildings are to be reinforced.—Factory premises are to be erected at junction of Southall-st. and Clarence-st., Cheetham. Plans by Mr. Flitcroft, architect, of Walkden-rd., Worsley.

Manchester.—Work of constructing a foot bridge over Bridgewater Canal on west side of existing Matherlane Bridge at Leigh, commenced.

Mansfield.—T.C. passed plans:—R. Allen 4 houses, Jenny Becketts-lane; H. Ashley, 3 houses, Perlethorpe-av.; United Methodist Church Trustees, Sunday School-buildings, Bath-st.; H. Baggaley, 6 houses, Nottingham-rd.; H. Ashley, 4 houses, Perlethorpe-av.; Mansfield Corporation (Electricity Dept.), sub-station, Bleakhills-lane.

Mansford.—T.C. are to erect 50 houses on Ravensdale estate.

Morecambe.—T.C. passed plans for 10 houses in Victoria-parade, for J. E. Roscoe.

Newcastle.—Sir James Knott given £6,000 to Northern Counties Orphanage, for construction of swimming bath.

North Bromsgrove.—U.D.C. is making application to Ministry of Agriculture and M.H. to utilise a portion of Cobnall and Long Meadow land for housing purposes.

Northampton.—C.B. instructed B.E. to obtain tenders for erection of sports pavilion in Kingsthorpe recreation ground.—Grant of £210 be made to the All Saints' Church Council towards cost involved in restoration of church tower.—Plans passed:—re-erection of tanks, pumphouse, etc., and new office and extensions to spirit depot, Bridge-st. Station Sidings, British Petroleum Co., Ltd.; new assembly room, Bethany Homesteads, Gipsy-lane, Committee of Bethany Homesteads; offices, garage and store, 7-11, Wood-st., A. R. & W. Cleaver, Ltd.; extensions to cinema, Grove-rd., Norfolk; nurses' home, Billing-rd., Governors of St. Andrew's Hospital.

Norwich.—Mental Hospital Visiting Committee recommended, subject to sanction of M.H., two 2-story villa blocks, each to accommodate 50 patients, be constructed at £16,136, in accordance plans provisionally approved by Board of Control.

Nottingham.—City Council considering scheme for erection of 1,200 houses on Aspley-lane estate.

Nottingham.—Proposal to adapt Woodthorpe Grange for purposes of a boys' school to accommodate 329 pupils, at £10,354, been considered by E.C.

Nuneaton.—T.C. approved recommendations of Highways Committee that estimate of £14,500 for construction of proposed new bridge and road in Bridge-st., Coton, and £10,400 for new bridge over River Anker, and necessary street works from Newton-rd. to Bond-st.

Orsett.—M.H. held inquiry into application of R.D.C. for approval of preliminary statements of proposals for development in connection with town planning scheme, No. 2 and No. 3 sections.

Overshot.—Essex C.C. sanctioned £600 for repairs to embankment approaches at bridge.

Paignton.—U.D.C. are to invite tenders for erection of 13 houses in York-rd.

Pinner.—St. George's, Headstone, near Pinner, is to have a new parish hall at £8,000.

Preston.—A. C. Lillie, architect, Bamber Bridge, prepared plans for extensions to Queen Victoria Royal Infirmary.

Rainham.—Sum of £1,320 is to be spent by Essex E.C. on extension to Council school.

Rannoch.—Owing to two of arches of bridge spanning River Tummel at Kinloch Rannoch having become cracked, Highland District Committee arranged for repair and strengthening of structure, at £820.

Rochford.—M.H. approved erection of 20 houses at Rayleigh, 12 at South Benfleet, 20 at Eastwood, and 6 at Rochford.

Romford.—Essex E.C. recommend £3,429 for enlargement of London-rd. school.

Rothwell.—U.D.C. decided to instruct architect prepare plans for 14 non-parlour houses, and invite tenders.

Rowley Regis.—M.H. sanctioned borrowing by Council of £30,100 in connection with erection of 78 houses on Church Farm estate.

St. Helens.—Housing Committee received sanction of M.H. to purchase 10½ acres of additional land at Scholes-lane, Thatto Heath, from the Charity Commissioners, for housing purposes.

Seaton.—U.D.C. are to purchase 46 freehold sites for houses in Eyewell Field.

Selby.—U.D.C. decided to build 36 houses on Flaxley-rd. estate, and it was resolved to apply to M.H. for sanction to loans amounting to £6,614 for erection of houses.

Sheffield.—Sheffield and Ecclesall Co-operative Society, Ltd., proposing to make alterations to central store at Ecclesall-rd., and considering getting out plans.

Shepperton-on-Thames.—Rev. H. E. McLeod, Vicar, intends to give public notice of proposed erection of church schools in the parish, to cost about £3,200. Plans by Alfred Cox, 11, Southampton-row, W.C.1.

Slough.—U.D.C. passed plans:—E. Cave, offices, Great Western Railway Yard; British Legion Club, club premises, Stoke-rd.; Pondac, Ltd., 3 houses, Elliman-av.; H. D. Mines, 3 pairs of houses, Bradley-rd.; J. A. Pond, 2 houses, Bradley-rd.; W. P. McConnell, 2 houses, St. Paul's-av.; H. Heath, 74 houses, Leeds and Carmarthen-rds.

Smethwick.—C.B. resolved to recommend that application be made to M.H. for approval to erection of further four blocks of maisonettes on Old Chapel estate, and for sanction to raising of necessary loan.—E.C. recommend alterations at Holly Lodge High School for Girls, at £2,700.—Plans passed:—3 houses at Vicarage-rd., for J. C. Jones; extension to offices at Dartmouth-rd., for Birmingham Aluminium Casting (1903), Ltd.; bowling pavilion and additions to Thimblemill Hotel, Thimblemill-rd., for Mitchells & Butlers, Ltd.; 20 houses at Hugh-rd., Ernest-rd., Jacmar-crescent, and Walter-rd., for Excelda Housing Society, Ltd.; 14 houses at Jacmar-crescent, for Strong Bros.

Southend-on-Sea.—C.B. passed plans:—10 houses and 10 garages, Dale-rd., Leigh, J. T. O'Connor; 22 houses and 22 garages, The Leasway, Tomkins & Smith; 4 garages, North-st., Prittlewell, F. W. Davison; 3 garages and 2 stores, Grange-rd., Leigh, S. F. Johnson & Co.; 15 stores at rear of premises, 28 to 56, York-rd., F. M. Wardill; 3 bungalows, Central-av., W. T. Cusdin; 3 bungalows, Rylands-rd., W. T. Cusdin; extension of pump house, L.M. & S.R. Co.'s good yards, Southchurch-av., British Petroleum Co.; amended drainage plan of new cinema and lock-up shops, Southchurch-rd., corner of Lovelace-av., Plaza (Southchurch) Cinema, Ltd.; 5 houses, Ilfracombe-av., E. Wingrave; alterations and additions to offices, Canvey-rd., Leigh, Southend Waterworks Co.; 7 houses and 2 bungalows, Dale-rd., Leigh, E. Taylor.

Southgate.—U.D.C. passed plans:—Ideal Housing Co., 8 houses and 6 garages, 42-56, Wyncgate; B. & A. White, 17 houses with garages, Minchenden-crescent; F. Denchfield, 3 garages, Trent-gardens; G. L. Brondson, 6 houses with garages, Forestdale; W. Beckwith, 10 houses, Highfield-rd.; C. W. Dennis, amended plan of 4 houses, Chase-rd.; D. Morris & Sons, Ltd., 10 shops with flats over, Green-lanes, between Grenoble-gardens and Tottenhall-rd.; C. E. Hartshorne, 9 houses, Powys-lane; G. L. Brondson, amended plan of 6 houses, and drainage plan of 8 houses, Forestdale; J. Scarborough, 4 houses and bungalow, corner of The Fairway and Reservoir-rd.; W. S. Ingram, 8 houses, six with garages, 52-66, Bourne-hill; North Metropolitan Electric Power Supply Co., electrical sub-station, Old Park Ridings; C. S. Brown, 13 garages, rear of Aberdeen House, High-st.; F. Denchfield, amended plan of 3 garages, Trent-gardens; R. J. Rowley, Ltd., amended plan of 8 houses, Winchmore Hill-rd.

South Hornchurch.—Essex E.C. recommend £1,872 for enlargment of Council school.

Tottenham.—U.D.C. passed plans:—3 houses, Sherringham-av., P. R. Roberts; rebuilding "The Chequers," 841, High-rd., S. A. Yeo; 4 houses Sherringham-av., H. & G. W. Rowley; 3 houses, Cambridge-rd., Downhills, F. C. Alford; 4 houses, Wellington-av., G. Reed; 26 houses, Cambridge-rd., near Edmonton Boundary, C. A. Pilgrim; 4 lock-up shops, White Hart-lane, A. Barber.

Twickenham.—Borough Engineer prepared preliminary plans of scheme for extension of large hall at York House, which increased seating capacity from 404 to 626 persons, at £7,500.

Tynemouth.—T.C. passed plans for 8 semi-detached houses, Balmoral-gardens, by A. K. Tasker, for Jas Frazer.

Uxbridge.—M.H. approved R.D.C.'s scheme to build 30 houses at Harefield, 20 at Cowley and 20 at West Drayton.

Waltham Abbey.—U.D.C. received M.H. sanction to loan of £20,200 for erection of 50 houses.

Walthamstow.—U.D.C. passd plans:—9 houses, Hale End-rd., A. G. Gale; 4 houses, The Avenue, Highams Park, West Bros. & Pettet; 17 houses, Cecil-rd., J. W. Warboys; 4 garages, Samuel-rd., S. Greenwood; 16 houses, Pentire-rd., E. E. Wire; 40 garages, Hale End-rd., E. F. Wire.

Wanstead.—Electric light is to be installed at Aldersbrook-rd. school, for Essex E.C., at £250.

Warrington.—C.B. sanctioned £300 for fencing, etc., in Hawthorn-grove and Myrtle-grove.—Council received sanction of M.H. to borrowing of £48,645 in respect of erection of additional 124 houses on Bewsey estate.

West Hartlepool.—T.C. passed plans for C. Dixon, 3 pairs semi-detached houses, Oakland and Greta-avs.

West Riding.—Tenders amounting to £24,079 19s. 9d. been accepted for carrying out extensions to Bingley Grammar School, and scheme for carrying out extensions at Skipton Grammar School, at £18,900.

Weston-super-Mare.—U.D.C. received M.H. sanction to borrowing of £3,050 for purchase of land adjoining Kensington-rd. as a site for provision of working class dwellings. Committee considered Surveyor's lay-out plan of land to be acquired adjoining Kensington-rd., showing the proposed new streets, and the size and number of the intended building sites and buildings, 108 in all. Plan was approved and adopted.

Whitley Bay and Monkseaton.—U.D.C. is proposing to erect cafe and shelters on northern promenade, at £7,000.

Whitley Bay.—Plans passed:—2 pairs semi-detached bungalows in Ackland-rd., for W. J. Rex; 3 pairs semi-detached houses in Townsville-av., for J. Mather; 26 houses in Langley-av., for Storey & Reid; 28 houses in Langley-av., for H. & S. Alderson; 12 houses in Townsville-av., for G. Mather; pair of semi-detached houses in Lyndhurst-av., for S. A. Johnston.

Windsor.—Plans passed:—Reconstruction of ward destroyed by fire at King Edward VII. Hospital, and also for extension of out-patients' department; 4 houses in Parsonage-lane, for E. Pridmore.

Wood Green.—U.D.C. passed plans:—Torrington-gardens, electricity sub-station, T.D.L.H. and Power Co.; Saxon-rd., amended lay-out for 3 houses, F. F. Tomlin; 30-36, Perth-rd., 4 houses F. F. Tomlin; Alexandra Park-rd., 7 houses and 9 garages, Pryor Bros.

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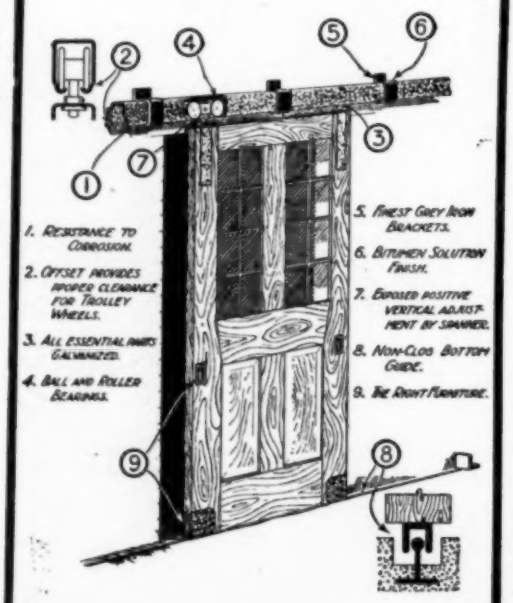
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Dry Teak, ft. cube	0 13 0	to 0 15 0
Dry American Whitewood, ft. cube	0 10 0	to 0 14 0
Best Scotch Glue, per cwt.	4 10 0	to —
Liquid Glue, per cwt.	4 7 0	to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000.

	£ s. d.		£ s. d.
24 by 12	32 18 4	18 by 10	18 12 11
22 by 12	29 17 11	18 by 9	16 9 2
22 by 11	27 14 2	16 by 10	15 12 6
20 by 12	26 5 0	16 by 8	12 3 9
20 by 10	22 10 0		

TILES.

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000. f.o.r. London.

		£ s. d.
Best machine-made tiles from Broseley or Staffordshire district		5 7 6
ditto hand-made ditto		5 17 6
Ornamental ditto		6 2 6
Hip and valley tiles (per dozen)	Hand-made	0 9 6
	Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	12 10 0
Plain Compound Girders	14 10 0
„ Stanchions	16 10 0
„ In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ½ in.	10 15 0
⅜ in.	11 0 0	⅝ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ⅜ in. and under.	Fittings. Over ⅜ in.	Flanges. ⅜ in. and under.	Flanges. Over ⅜ in.
	%	%	%	%	%	%
Gas	67½	50	42½	45	52½	55
Water	63¾	46½	37½	40	47½	50
Steam	60	42½	32½	35	42½	45
Galv. gas	55	37½	32½	35	42½	45
Galv. water	50	32½	27½	30	37½	40
Galv. steam	45	27½	22½	25	32½	35

C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/3½	11½d.	3½d.
3½ in.	1/4½	1/1½	3½d.
4 in.	1/6	1/3	3½d.
4½ in.	1/7½	1/4½	4½d.
5 in.	1/10½	1/6½	5½d.
	O.G. GUTTERS.		
3 in.	1/8	1/4½	3½d.
3½ in.	1/8	1/4½	3½d.
4 in.	1/9½	1/4½	3½d.
4½ in.	1/11½	1/7½	4½d.
5 in.	2/4½	1/10½	5½d.

RAIN-WATER PIPES, &c.

Per yd. in 6 ft.	Pipe.	Bends, stock Branches, angles.	stock angles.
2 in. plain	1/10½	1/3	1/9½
2½ in. „	2/0½	1/4½	2/1½
3 in. „	2/6	1/9	2/7½
3½ in. „	2/11½	2/0½	3/0½
4 in. „	3/5	2/6½	3/8½

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe.	Bends, stock Branches, angles.	stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	3 3	2 4½	2 10
2½ in. „	3 9	2 7½	3 7
3 in. „	4 6	2 10	4 2½
3½ in. „	4 11½	3 7	4 11½
4 in. „	5 5½	4 0½	5 9

L.C.C. COATED DRAIN PIPES—London Price ex Works

	Bends, stock Branches, Pipe, angles, stock angles.		
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 4	5 1	8 0½
4 in. „ „	4 10	5 8	10 0
5 in. „ „	6 6	10 10	17 1
6 in. „ „	6 8	13 2	21 9

Gasken for jointing, 38/6 per cwt.

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common bars	13 0 0	to	14 10 0
Staffordshire Crown Bars—Good merchant quality	14 5 0	to	15 15 0
Staffordshire Marked Bars	16 5 0	...	17 5 0
Mild Steel Bars	10 0 0	...	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	...	11 0 0
Hoop iron, basis price	12 0 0	...	13 0 0
„ Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black—Ordinary sizes, to 20 g.	13 5 0	...	14 5 0
„ „ „ 24 g.	14 5 0	...	15 5 0
„ „ „ 26 g.	16 5 0	...	17 5 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 26 g.	15 10 0	...	1o 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 10 0	...	17 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18 10 0	...	20 10 0

No. 1 quality £4 per ton extra.

Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	18 0 0	...	19 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	18 10 0	...	19 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	21 10 0	...	22 10 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	22 0 0	...	23 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 0 0	...	26 0 0
Best Soft Steel Sheets, 26 g.	25 10 0	...	26 10 0
Cut Nails, 3 in. to 6 in.	18 0 0		

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)

	£ s. d.
LEAD—Sheet, English, 4 lb. and up	30 0 0
Pipe in coils	30 10 0
Soil pipe	33 10 0
Compo pipe	34 10 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 5s. cwt. extra.

Oil lead, ex London area, at Mills per ton — 20 5 0

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	1 1
Strong sheet „	1 0
Thin „	1 1
Copper nails „	2 3
Copper wire „	2 4

PLUMBERS' BRASS WORK
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- „

TIN.—English Ingots, 2/6 per lb. SOLDER.—Plumber's 1/1, Tinmen's 1/4, Blowpipe 1/5 per lb.

PAINTS, &c.

			£ s. d.
Raw Linseed Oil, in pipes	per gallon		0 2 8
„ „ „	in barrels	„	0 2 10
„ „ „	in drums	„	0 3 0
Boiled „ „	in barrels	„	0 3 0
„ „ „	in drums	„	0 3 3
Turpentine	in barrels	„	0 3 10
„	in drums (10 galls)	„	0 4 0
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.)			52 0 0

Extra for 1-cwt. kegs over 5-cwt. casks is 5/0 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

PAINTS, &c. (*contd.*)

		£	s.	d.
Genuine White Lead Paint. "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganwyte," "Polacco," "J," Brand, and other best brands (in 14 lb. tins) not less than 5 cwt. lots	per ton delivered	70	10	0
Red Lead, Dry (packages extra) ...	per ton	39	10	0
Best Linseed Oil Putty	per cwt.	0	15	0
Fillcol	"	0	15	6
Size. XD quality	ftkn.	0	3	6

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths ...	2½d.	32 oz. fourths	6½d.
15 " thirds ...	3½d.	32 " thirds	8½d.
21 " fourths ...	3½d.	Obscured Sheet, 15 oz.	3½d.
21 " thirds ...	4d.	" " 21 "	4½d.
26 " fourths ...	3½d.	Fluted 15oz.6½d.,21oz.	0d.
26 " thirds ...	6½d.	En'lled 15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
⅛ Rolled plate	4½d.
¼ Rough rolled	5½d.
½ Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8½d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	6
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	2	0
Best ditto	ditto	1	12	0
Best Japan Gold Size		0	12	6
Best Black Japan		0	10	6
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	6
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebine		0	9	0
Cuirass Black Enamel		0	7	0

PATENTS

APPLICATIONS PUBLISHED.*

289,144.—E. W. Hewett: Machines for making building bricks and blocks.

289,153.—K. Carpmael and K. S. Carpmael. Manufacture of white oil paints from lithopone and the manufacture of lithopone.

289,210.—W. P. Butterfield, Ltd., and F. Wood: Cisterns.

289,225.—G. O. Lawton, S. Dowthwaite and Albion Clay Co., Ltd.: Drying of sanitary pipes.

289,230.—E. Hole: Brick-making machines.

273,260.—Soc. Migeot Freres et Arnould: Enamels based upon barium and strontium compounds.

289,269.—A. Jacobson and A. L. Ogilvie: Flushing valves.

289,274.—E. Heumann: Ditch digging and cleaning machine.

289,282.—K. Kniepert: Regenerator building brick or block.

289,356.—W. Halket: Sinks.

283,520.—E. Molia: Chimney tops.

291,486.—S. A. McMinn: Anti-corrosive paint for iron steelwork.

291,509.—W. H. Smith: Mixing-machines.

291,523.—T. S. Curtis: Process of forming ceramic articles.

291,524.—T. S. Curtis: Ceramic product and process of making.

291,525.—T. S. Curtis: Apparatus for making ceramic articles.

291,566.—W. C. King: Making up of solid panel fencing.

291,583.—S. A. Crewe and J. H. Crewe: Front frames for firegrates.

291,590.—W. E. Evans: Cranes.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

THE SCOTTISH BUILDER

NEW BUILDINGS

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned.

Argyll.—Roads.—Following on a recent conference between Sir Henry Maybury and representatives of Argyll C.C., it has now been decided, with the approval of the Ministry of Transport, and subject to the adjustment of certain formalities, to accept the following tenders for the construction of the three sections of the new Tyndrum-Ballachulish road, situated in Argyll:—Contract No. 1 (Carnock to Kingshouse, 12½ miles), Messrs. William Tawse, Ltd., Aberdeen, £217,824 13s. 4d. Contract No. 2 (Kingshouse to Bridge of Orchy, 11¾ miles), Mr. John M'Colville, Abergavenny, Monmouthshire, £167,000. Contract No. 3 (Bridge of Orchy to county boundary between Argyll and Perth, 4¾ miles), the Alston Limestone Co., Ltd., Newcastle-on-Tyne, £68,778 10s.

Dundee.—Buildings.—Plans and sections of the following proposed new buildings, etc., have been lodged at the office of the City Engineer:—Clepington-road — dwelling-house for Mr. G. Ashwood (Mr. Joseph Johnston, architect, 32, Bank-street); Perth-road — alterations and additions for University College, Dundee (Messrs. Mills & Shepherd, architects, 9, South Tay-street); and School-road—dwelling-houses for Mr. A. Inglis Shepherd (Mr. W. B. D. Keith, architect, 10, Whitehall-street).

Dundee.—Police Headquarters.—Plans for new police headquarters, involving an expenditure of £30,000, have been approved by the Police Committee of the Town Council and forwarded to the Scottish Office.

Edinburgh.—Building. — The Edinburgh Dean of Guild Court has granted a warrant for the erection of a chapel in connection with the Convent of the Community of the Good Shepherd at Woodfield, Woodhall-road, Colinton. The following were also granted:—D. Alexander, double villa at 46 and 48, Liberton-drive; Anderson and Walker, three bungalows at Templeland-road; T. S. Henderson, two double bungalows at Groathill-road, Blackhall; W. Inglis, two houses and garages at 49 and 51, Liberton-gardens; Scottish Provident Institution, alterations at 5-9, Meuse-lane.

Grantown. — Bridge. — The Moray Road Board, at a special meeting in Elgin, decided to recommend the County Council to co-operate with Inverness-shire in building a new road bridge over the river Spey at Grantown at an estimated cost of £23,000. The new site is to be selected by Mr. Hall Blyth at a part of the Spey where the current is slower.

Motherwell. — Church. — A new Roman Catholic Church is to be built at Carfin Grotto, Motherwell, to cost a quarter of a million pounds. It is to be built of concrete blocks on the Scottish baronial style, and will hold 6,000 people. There will also be a cloistered open-air court to accommodate 2,000. The work will be under the direction of the Rev. Father Taylor.

"Cæsar's Camp," Wimbledon.

Wimbledon Council has decided that "Cæsar's Camp," just by Wimbledon Common, which was recently threatened by a building project, shall be scheduled under the Council's Town Planning Scheme as an open space for ever.

Glamorganshire's New Roads.

If the Ministry of Transport sanction the road schemes proposed by the Glamorgan County Council, work will be found during the coming winter for hundreds of men. The estimates in connection with these schemes amount to nearly £500,000. One proposal is to construct a new road between Mountain Ash and Aberdare at a cost of £100,000, and a second scheme is for the cutting of a new road at Abercynon at a cost of about £80,000.

BUILDING TRADE WAGES IN SCOTLAND.*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons' ‡ Bricklayers'‡ Plasterers'†
Aberdeen	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Airdrie	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Alexandria	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1
Ayr	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Bathgate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Coatbridge	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumbarton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumfries	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/2
Dundee	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3 †1/2½
Dunfermline	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	‡1/2½ †1/2½
Edinburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/6½	1/7	1/6½	1/7	1/6½	1/6½	1/7	1/2
Glasgow	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Hawick	1/7	1/7	1/7	1/7-1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/- to 1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Kirkcaldy	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Leith	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Perth	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Stirling	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	1/2½
Stirlingshire (Eastern District)	1/7½	1/9	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 570.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—

Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	20	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors and partitions	" "	6	0
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

Flat centering for concrete floor, including struts or hangers	"	50	0	
Do. to beams	per ft. sup.	0	11	
Centre for arches	"	1	6	
Gutter boards and bearers	"	1	0	

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	"	—	49/-	57/6	65/-
Do. matchings	"	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Dc.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights ; average size	" "	3	9

DOORS.

		1¼"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

			s.	d.
Deal wrot moulded and rebated	per foot cube		14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bea ers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail : average, 3 in. × 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roofwork	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	43	0
Do. Do. in flats	"	42	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Read lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	" "	2	9
Do. Do. Keen's	" "	4	0
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1¾
One-and-a-half granolithic pavings	per yard sup.	5	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	" "	1	0
Obscured sheet	"	1	1
⅛-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10½
¼-in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* **Denotes** *accepted.*

† **Denotes** *provisionally accepted.*

‡ **Denotes** *recommended for acceptance.*

§ **Denotes** *accepted subject to modifications.*

Arundel.—10 houses on the Council's estate at Priory-road, for the U.D.C. Mr. G. A. Gates, surveyor:—

*H. J. Jenkins, Littlehampton £4,750

Askam-in-Furness.—New bowling green, etc., Ireleth-road, for Messrs. James Thompson & Co., Ltd. Mr. F. J. Parker, L.R.I.B.A., architect, 111, Duke-street, Barrow-in-Furness:—

*C. H. Hunter.

Atherton.—Cottages on Hag Fold estate, for the U.D.C. Mr. Frank L. Boydell, surveyor:—

*G. & J. Seddon, Ltd., Manchester.

Barrow-in-Furness.—Additions to 27, Croslands-park, for Miss Helme. Mr. F. J. Parker, L.R.I.B.A., architect, 111, Duke-street:—

*Moody & Thompson £538 10

Bath.—For redecoration at (a) Kingsmead, and (b) St. John's R.C. schools, for the T.C.:—

(a) *Hope Bros.
(b) *Date Bros.

Blackpool.—New Wesleyan church at Highfield-road, South Shore, for the Trustees. Messrs. Potts & Hennings, A. & F.R.I.B.A., architects, 32, Victoria-buildings, Manchester:—

*Atherton Bros., Blackpool.
Steelwork—
*Banister Walton & Co., Ltd., Manchester.

Bexhill.—80 houses in Buxton-drive extension, for the T.C. Borough Engineer and Surveyor:—

Peter Gatton, Ashurst Wood ...	£22,200	0	0
Gilbert Brothers, Broadstairs ...	21,854	0	0
James Bodle, Ltd., Bexhill ...	21,289	0	0
Cox Brothers, Maidstone	20,897	0	0
W. J. Simms, Sons & Cooke, Ltd., Nottingham	20,730	0	0
Pickup & Earl, Maidstone	20,663	0	0
Ellis, Thompson & Co., Ltd., Hayes, Kent	20,428	18	10
Sherren, Ltd., Cooksbridge ...	20,214	0	0
Nissen-Petren Houses, Ltd., London	19,780	0	0
*Norman Smith & Son, Maidstone	18,826	0	0
Friend & Bradshaw, Newcastle	15,600	0	0

Bradford.—Council School at Willow-park, for the T.C.:—

Brickwork and Mason—			
*J. Featherstone	£8,287	5	0
Joiner—			
*C. L. Jackson	2,994	10	8
Slater—			
*Stewart Bros. & Son	1,385	0	0
Plumber and Glazier—			
*R. Leng	1,443	18	8
Plasterers—			
*T. W. Senior & Sons	404	5	0
Painter—			
*E. Priestley, junr.	309	13	0

Brighton.—Demolition of certain buildings on the site of 1 and 2, Edward-street, and the erection of a new dwelling-house, veterinary surgeon's consulting room, surgery, etc., for the Corporation:—

David, Pierson & Co., Ltd., London...	£2,891
J. W. Woolnough, Ltd., Eastbourne ...	2,798
George Lynn & Sons, Brighton	2,659
Saunders's, Brighton	2,598
Patching & Son, Ltd., Brighton	2,513
Parsons & Creswell, Brighton	2,502
James Barnes & Sons, Brighton	2,464
*R. Cook & Sons, Ltd., Crawley	2,355

Broughton.—Stores at the corner of Sharoc-Green-road and Garstang-rd., for the Preston Industrial Co-operative Society, Ltd. Mr. George H. Broadbent, architect, 12, Guildhall-street, Preston:—

*T. Croft & Sons, Ltd., Preston.

Buck Cross (Devon).—Parochial room, for the Vicar. Mr. G. E. Mullard, architect:—

W. J. Branch, Bideford	£512
W. Beer & Son, Bideford	503
Hockin Bros., Horns Cross	465
Davey & Braund, Bucks Cross	430
*A. F. Beer, Bideford	384

Burnley.—Central library, for the T.C.:—

*M. & J. W. Heap, Ltd., Burnley...	£20,940
Steelwork—	
*Edward Wood & Co., Ltd., Manchester	1,400
Plumbers and glaziers—	
*J. Shoesmith, Burnley	1,538
Joiners—	
*Clegg Bros., Burnley	3,550
Plasterers—	
*R. Guest, Brierfield	1,960
Painters—	
*Lord & Sons, Burnley	356
Slaters—	
*Whitaker & Clegg, Burnley	188

Camborne.—50 non-parlour type houses, for the U.D.C.:—

*J. H. Lobb, Mevagissey £17,522

Cardiff.—Four blocks of flats on Leckwith-road, for the T.C. Mr. G. Whitaker, City Engineer and Surveyor:—

‡E. J. Smith & Co., Cardiff (per block) £1,340

Chard.—6,550 yards of 5 in., 4 in. and 3 in. cast-iron water mains, with necessary valves, hydrants, etc., motor and pump house reservoir, electric motors, and well pumps, and other works, for the Corporation. Mr. S. R. Lowcock, civil engineer, 6, Queen Anne's-gate, S.W.1:—

*Ward & Tetley, Bradford £13,095 10 8

Crockenhill.—Renovation and decoration of All Souls' Church and schools:—

*Peaster & Son, Kent.

Croxdale.—Rebuilding the Sunderland Bridge Inn on the Durham-road, for the People's Refreshment House Association. Mr. S. Wilkinson, L.R.I.B.A., architect, School House, West Rainton, Co. Durham:—

*Jameson & Son, Darlington.

Dublin.—Warehouse at the Custom House Docks, for the Port and Docks Board:—

*W. & A. Roberts, Dublin.

Edinburgh.—Roughcasting of 166 houses, for the Corporation. Mr. E. J. MacRae, A.R.I.B.A., City Architect, City Chambers. Quantities by Messrs. Fairbairn, Lightbody & Cownie, F.F.S., Edinburgh:—

*James Gillies, Edinburgh £3,957

Edinburgh.—Extensions to Morningside public library, for the T.C. Mr. E. J. MacRae, A.R.I.B.A., City Architect:—

Mason—			
*Melrose & Thomson, 3, Drum Terrace	£499	12	3
Joiner—			
*T. K. Irvine, Bathgate	349	10	6
Plumber—			
*R. Blackie & Son, 5, Comiston-road	173	0	0
Plasterer—			
*Lind Bros., Lochgelly	173	17	10
Steelwork—			
*Redpath, Brown & Co., Ltd., Edinburgh	181	16	4
Slater—			
*James Gillies, Leith	101	10	0

Edinburgh.—Coal bunkers at Portobello power station, for T.C. Mr. E. J. MacRae, A.R.I.B.A., City Architect:—

*Caledon Shipbuilding and Engineering Co., Ltd., Dundee £5,685

Edinburgh.—Greenhouse at Inverleith-park, for the T.C. Mr. E. J. MacRae, A.R.I.B.A., City Architect:—

*Donaldson & Skene, Edinburgh £368

Gainsborough.—Elementary school in Sandfield-lane, for the E.C. Messrs. Scorer & Gamble, A. & F.R.I.B.A., architects, Bank-street-chambers, Lincoln:—

*A. E. Mason, Gainsborough.

Gateshead.—44 houses on the Denewell estate, Low Fell. Mr. W. F. Philipson, architect, 17, West-street:—

*Wales and Elliott, Gateshead.

Glasgow.—Factory premises in Templeton-street. Mr. G. A. Boswell, architect, West George-street:—

*Thaw & Campbell, Glasgow.
Steelwork—
*MacLellan, Ltd., Glasgow.

Greenfield.—Semi-detached villas, semi-detached bungalows and 6 shops on the Dacres Garden City Estate, for Mr. W. T. Crossman. Mr. F. Thorpe, F.R.I.B.A., architect, Union Bank-chambers, Oldham:—

Bricklayer and Joiner—
*W. H. Brown.
Roofing—
*W. Hunt.
Plastering—
*P. Griffin & Son.
Plumber—
*Thomas Delaney.
Electrician—
*J. W. Lees.
Painting—
*Rueben Whitehead.

Guildford.—Demolition of certain existing buildings and erection of garage at Bedford-road depot, for the T.C. Mr. J. W. Hipwood, Borough Engineer:—

R. Wood & Son, Guildford	£381	0
Franks & James, Guildford	320	5
H. W. Yates, Sunningdale	309	0
H. Ashenden, Guildford	285	0
A. Grove (jun.), Guildford	279	0
Enticknap Brothers, Wormley	263	0
*W. J. Holt, Hambledon	258	0

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Guildford.—Repairs and decorations to No. 1 Castle-street, and 1 to 4, Spring-gardens, for the T.C. Mr. J. W. Hipwood, Borough Surveyor:—
H. W. Yates, Sunningdale.
T. W. Radford, Guildford.
*Enticknap Bros., Godalming.

Halesowen.—Reconstruction of out-offices at the elementary school, for the Worcestershire E.C.:—
*Housing, Ltd., Blackheath £437

Headington.—60 houses, for the U.D.C.:—
*Blackwell & Meyer, Bexley Heath £21,859

Hendon.—Extension to the premises of the Nevitt Book Binding Co., Edgware-road, Colindale, N.W. Mr. H. C. Nightingale, architect, King William-street, E.C.:—
*John Laing & Son, Ltd.
Steelwork—
*Matthew Shaw & Co., Ltd.
Plumbing—
*Shoulsmith & Sons, York.
Patent Glazing—
*Mellowes & Co., Ltd.
Slating—
*Parkinson, Ltd.
(All of London.)

Heston and Isleworth.—For six pairs parlour houses, seven blocks of four non-parlour houses, on the Worton-road estate; extension of road, four blocks of four houses, one block of three houses, one pair of houses, on James-street estate; and two blocks of four non-parlour houses, on the Myrtle-road estate; for the U.D.C. Mr. J. G. Carey, engineer and surveyor:—

	(James-st.)	(Myrtle-rd.)	(Worton-rd.)
Blackwell & Meyer, Bexleyheath	*£9,777	£3,575	* £17,549
K. Craig & Sons, London	10,682	3,740	19,304
Drinkwater & Sons, Feltham	11,417	3,952	19,803
Edwards & Co., Barking	—	4,216	—
Franklin & Co., Northumberland Heath	11,520	4,100	20,943
W. R. Gray, Heston	—	*3,184	18,830
H. I. Hughes, Llanelly	—	3,556	18,333
F. J. Pateman, Hounslow	15,467	5,198	27,985
W. H. Pecover, Shean	—	4,032	—
Streek & Co., Ltd., London	10,791	3,627	19,361
Pondac, Ltd., London	—	4,126	21,403
Unit Construction Co., London	10,702	3,778	19,586
L. Wilkinson & Co., Hounslow	10,954	3,858	20,097
E. Clarke & Sons, London	14,628	4,528	23,026

Hinckley.—20 houses in Mill-lane, for the U.D.C. Mr. Crump, architect, Barclays Bank-chambers:—
*G. Cooper & Sons, Ltd., Nuneaton... £9,350

Hindley (Lancs).—Painting of a portion of the inside of the Council offices, for the U.D.C. Mr. O. P. Abbott, surveyor:—
*W. Leyland & Sons, Ince.

Huddersfield.—22 houses at Brackenhall-road, Sheepridge, for the Corporation. Borough Architect, 26, Ramsden-street. Quantities by the Borough Architect:—
Masons—
*Walker Bros.
Joiner—
*Albert Gill.
Plumbers—
*Best Bros.
Plasterers—
*Tom Robinson & Son.
Slaters—
*Thornton & Kitchingman.
Painter—
*Squire Kitchen.
Electricians—
*J. R. Dunkey & Son.
Asphalters—
*J. Cooke & Son, Ltd.
(All of Huddersfield.)

Hull.—Printing works in Perth-street. Messrs. Wheatley & Houldsworth, architects, Saville House:—
*F. Bilton, Hull.

Kidderminster.—Additions to the carpet factory in Birmingham-road, for Messrs. W. & R. Adam. Messrs. Pritchard & Godwin, F.R.I.B.A., architects, Bank-buildings:—
*T. W. Edwards & Son, Stourbridge.

Kingsclere.—Small bridge at Axman's Ford, for the R.D.C. Mr. A. E. Orledge, surveyor:—
A. G. Ostenton, Tilehurst £482 11 2
Boshers (Cholsey), Ltd., Cholsey 367 16 0
Bridge & Engineering Co., Towyn, Wales 304 11 4
*G. Hopkins, Kingsclere 267 5 7

Leicester.—Painting at the isolation hospital:—
*J. Fassett, Leicester £355

Leicester.—Alterations at Belgrave library:—
*Webster & Goodman, Leicester £662

Leicester.—Conveniences at Hinckley-road tram terminus, for the Corporation. Mr. A. T. Gooseman, City Surveyor. Qauntities by the City Surveyor:—
*Kellett & Son, Leicester.

Leighton Buzzard.—Alterations and extensions to the Cedars Secondary school, for the Beds E.C. Mr. O. P Milne, F.R.I.B.A., architect, 64, Wigmore-street, W.1:—
*E. Pryer, Luton £14,544
(In lieu of tender withdrawn.)

London.—Underground convenience for men at Rushcroft-road and for the conversion of the present underground convenience in Brixton-road into one for women only, for the Lambeth B.C.:—
*J. Crewdson, London £3,608

Luton.—Garage, at the Sewage pumping station, for the T.C.:—
*A. W. Oakley £325 10

Lytham St. Annes.—Improvements to the Hospital. Mr. Hedges, architect, Midland Bank-chambers:—
*John Heap & Sons, Ltd.
Masons—
*Ratcliffe Bros.
Reinforced concrete—
*John Dickinson & Co. (Bolton), Ltd.
Plastering—
*E. & J. Forshaw.
Painting—
*H. Wilding & Co.
Plumbing and heating—
*Robert Walsh, Bolton.
Slating—
*Thomas Pearson.
Electrical—
*J. Cookson.
(All of Lytham.)

Manchester.—Extensions to the premises, for Mr. A. Croizet, proprietor of Maison Fascia, costumiers, etc.; 99, Oxford-road. Messrs. Pendleton & Dickinson, L.R.I.B.A., architects, 16, Brazennose-street:—
*S. Megarity & Co., Manchester.
Heating and Electric Light—
*Longworth & Sons, Manchester.

Manchester.—Shop front store rooms and general alterations to premises at 99, Brunswick-street, Chorlton-on-Medlock, for Messrs. Russells, Ltd. Mr. F. Fenn, L.R.I.B.A., architect, 1, Northparade, Parsonage:—
*E. Haynes (Jun.), Manchester.

Manchester.—Club premises in Stanley-street and Barber-street, Higher Openshaw, for the Openshaw Working Men's Club. Mr. F. H. Overman, architect, 2, Bellfield-road, Didsbury:—
*F. Goodyear & Sons, Manchester.
Plumbing—
*Fisackerly & Co., Droyleslen.

Manchester.—Conversion into shop and house at 60, Bury Old-road, Crumpsall, for Mr. I. Zendle, Crossley Hill-street. Mr. Peter Cummings, A.R.I.B.A., architect, 51, King-st.:—
*W. D. Scott & Co., Manchester.

Manchester.—Two story building in Chatham-street, Clayton, for the Clayton Aniline Dye Co.:—
*Tinker & Young, Ltd., Miles Platting.
Steelwork—
*Redpath, Brown & Co., Ltd., Manchester.

Manchester.—Conversion of stable into garage at 61, Brunswick-street, Chorlton-on-Medlock, for Messrs. J. J. Willis & Co.:—
*J. Kelly, Hulme.

Manchester.—Additions to dancing academy in Brunswick-street, Chorlton-on-Medlock, for Mr. M. Shorrocks. Mr. F. C. Lyon, architect, 44, Churchill-street, Chorlton-on-Medlock:—
*G. & W. Smith.
Joiner—
*Tinker & Young, Ltd.
Plasterer—
*A. Alberti.
Heating—
*Saunders & Taylor, Ltd.
(All of Manchester.)

Manchester.—Works in connection with St. Chad's schools, for the Rev. J. B. Calloway. Mr. W. Ellis, architect, 49, Deansgate:—
Suspended floors—
*Kleine Patent Fire Resisting Flooring Syndicate, Ltd., London.
Steel casements—
*Mellowes & Co., Ltd., Sheffield.

Mansfield.—New shop premises in Regent-street, for the Corporation:—

S. Higton & Sons, Sheffield	£6,040
A. Eastwood & Sons, Warsop	5,790
Greenwoods, Ltd., Mansfield	5,566
H. Blythe & Son, Mansfield	5,437
R. Moore & Son, Mansfield	5,415
C. C. Stafford, Mansfield	5,390
A. Mason, Mansfield	5,380
C. H. Hill, Mansfield	5,290
†H. James, Jnr., Mansfield	5,260
J. Harvey, Mansfield	5,200
Artificial stone—	
*J. Ellis & Sons, Leicester	£1,316

Mansfield.—53 houses in pairs and blocks of three, four and five, for the T.C. Mr. Waude Thompson, Engineer and Surveyor. Quantities by the engineer and surveyor:—

Clay Cross Co., Ltd., Clay Cross	£30,974
J. W. Tweltridge, Mansfield	22,282
S. Johnson, Hucknall	21,853
F. A. Roberts, Matlock Bath	20,978
W. Memmory, Sheffield	20,739
Pearson and Blackwell (Doncaster), Ltd., Doncaster	19,775
H. Blythe & Son, Mansfield	19,612
G. Day, Mansfield	19,484
J. G. Whittington & Son, Doncaster	19,284
J. F. Ball, Doncaster	19,024
S. Higton & Sons, Sheffield	18,990
C. C. Stafford, Mansfield	18,703
R. Moore & Son, Mansfield	18,603
*W. A. Mason, Mansfield	18,296

Middlesbrough.—Two blocks of flats on the Dacre-street area, for the Housing Committee of the Corporation:—
*A. McCleod, Thornaby £3,506

Newcastle-upon-Tyne.—3 combined shops and houses in Newton-road, High Heaton estate, for the T.C. Housing Architect:—

Noble & Son, Ltd., Newcastle	£2,997	0	0
T. Clements & Sons, Ltd., Newcastle	2,991	0	0
Joseph Wilkinson, Newcastle	2,988	0	0
J. Goulding & Sons, Blyth	2,924	0	0
J. S. Hetherington, Newcastle	2,905	0	0
David K. Gourley & Co., Newcastle	2,900	0	0
A. Anderson, Newcastle	2,820	0	0
Stephen Fenwick & Co., Newcastle	2,800	0	0
F. W. Mole, Chester-le-Street	2,774	3	9
F. P. Dodsworth, Monkseaton	2,728	15	2
T. E. Ridley, Gosforth, Newcastle	2,612	0	0
*Harry Kindred, Sunniside, Co. Durham	2,602	5	1

Newcastle-upon-Tyne.—20 houses on the Fenham housing estate, for the T.C. Housing Architect:—

T. Lumsden, Newcastle	£11,200	0	0
A. Anderson, Newcastle	8,496	0	0
John Craven, Newcastle	7,898	6	0
A. R. Robertson, Blyth	7,833	7	2
R. W. Scott & Co., Ltd., S'land	7,600	6	2
J. S. Hetherington, Newcastle	7,508	0	0
H. Bell & Sons (Ryhope), Ltd.	7,426	0	0
Ed. Rutter & Sons, Esh	7,394	0	0
W. H. Browse, North Shields	7,372	0	0
Noble & Son, Ltd., Newcastle	7,360	0	0
Shield Bros., Swalwell	7,337	11	4
T. S. Hedley & Sons, Ltd., Blyth	7,289	14	0
D. K. Gourley & Co., Newcastle	7,198	0	0
H. Kindred, Sunniside	7,194	0	0
*J. Goulding & Son, Blyth	7,180	16	0

Newcastle-upon-Tyne.—270 houses on section "C" of the Two Ball Lonnen housing estate, for the T.C. Housing Architect:—

A. Anderson, Newcastle	£112,744	0	0
E. Bruce & Sons, Newcastle	107,642	2	4
John Craven, Newcastle	106,465	7	0
G. Bailey, Ltd., South Shields	101,559	8	7
George Towers, Blyth	101,498	0	0
R. W. Scott & Co., Ltd., S'land	101,487	10	0
J. S. Hetherington, Newcastle	101,166	0	0
A. V. Clerey & Sons, S'land	100,899	0	0
H. M. Nowell, Ltd., Stockton	100,208	0	0
Ed. Rutter & Sons, Esh	99,961	0	0
Noble & Son, Ltd., Newcastle	99,000	0	0
H. Bell & Sons (Ryhope), Ltd.	98,597	0	0
T. S. Hedley & Sons, Ltd., Blyth	98,131	18	0
Shield Bros., Swalwell	97,981	11	11
D. K. Gourley & Co., Newcastle	96,758	0	0
Nordman & Sons, Ltd., Dunston	96,505	0	0
*H. Kindred, Sunniside	96,318	0	9½

Newton Abbot.—32 houses at Kingsteignton, for the R.D.C. Mr. B. H. Palmer, L.R.I.B.A., architect, 11, Union-street:—
*J. W. Spencer, Plymouth £12,107

Newton Abbot.—Model bakery at King-street, for the Co-operative Society, Ltd. Mr. R. A. Rogers, architect and surveyor, 7, Union-street:—

Willcocks & Barnes, Torquay	£2,159
H. Cruse, Torquay	1,936
Eales & Son, Torquay	1,933
F. D. Parker, Newton Abbot	1,920
Carpenter & Magree, Newton Abbot	1,847
*W. Stephens, Newton Abbot	1,845

Northampton.—Construction of a bridge over the river giving access to Baulmsholme, for the T.C.:—
*Holst, London £960

Nottingham.—Adaptation of the house, the adaptation of a garage for a technical block, the erection of an assembly hall, and conveniences, at Woodthorpe Grange, for the City Council:—
*T. Long & Sons £8,049

Paignton.—Mortuary at the rear of the Public Hall, for the U.D.C.:—

W. H. Webber	£255	0
Willicott & Barnes	245	5
Peeke Bros.	240	0
*S. Batten & Son	220	0

(All of Paignton.)

Pontefract.—For improvements at Union House, for the B.G.:—
*J. Hanson, Pontefract £158

Rawtenstall.—52 non-parlour type houses at the Lower Carr Farm estate, for the T.C. Borough Surveyor:—

*Leach & Unsworth, Ltd., Manchester.

Rothwell.—Pumping stations, houses, etc., for the U.D.C.:—

*Provincial Construction Co., Ltd. £62,917 10 6

Shepshed.—Two pairs of houses, for the U.D.C.:—

*H. Chapman & Sons, Markfield £845

Spilsby.—Eight cottages at Wainfleet, St. Mary, for the R.D.C.:—

*— Greetham, Skegness £2,918

Stoke-on-Trent.—Attendant's room at Victoria-place convenience at Fenton, for the T.C.:—

*Ball & Robinson, Stoke-on-Trent £353

Stoke-on-Trent.—Sub-station at Porthill, for the Electricity Committee:—

*Sambrook, Burslem £919

Stoke-on-Trent.—16 non-parlour type houses in Eaton-street, Hanley, for the T.C.:—

*Finney & Broadhust, Burslem £6,720

Usk.—For alterations and additions to the police station, for the Monmouthshire C.C. Mr. S. A. Bennett, County Surveyor, County Hall, Newport (Mon.):—

*W. J. Sweet & Sons, Usk £377 15 9

Uxbridge.—Lavatories on the site of the Cosy Tea Rooms, Windsor-street, for the U.D.C.:—

Fassnidge & Son	£2,487
W. S. Try	2,461
*L. Aston	2,393

Wakefield.—Primitive Methodist schools, Lupset estate, Dewsbury-road. Messrs. Dinsley & Moss, architects, Chorley:—

*Geo. Crook & Sons, Ltd., Wakefield £2,128 10

Waltham Abbey.—50 houses, for the U.D.C.:—

*J. Oram & Sons £23,305 10

West Ham.—Six flats and four lock-up shops at the corner of Manor-road and Memorial-avenue, for the C.B.:—

W. Jones & Sons, Ltd.	£6,220
*Works Manager	5,887
R. J. Rowley, Ltd.	5,572

Westmorland.—Additions to the County Hospital. Messrs. Curwen & Son, F.R.I.B.A., architects:—

Masons—	
*W. Howie & Sons	£7,998
Joiners—	
*Hays & Parkinson	2,467
Plumbers—	
*Airey & Co.	2,240
Painters and Glaziers—	
*Nicholl	680
Plasterers—	
*Storey & Son	574

(All of Kendal.)

Wisbech.—For workshop and structural alterations to the Workhouse, for the B.G. Mr. J. W. Crouch, architect and surveyor, 3, Post Office-lane. Quantities by the architect:—

Elworthy & Company, Ltd., Upwell Isle	£476 2 11
J. H. Johnson & Sons, Wisbech	475 13 0
W. Bailey & Sons, Wisbech	470 2 5
T. A. Windley, Emneth, near Wisbech	460 17 6
*White & Holmes, Elm, near Wisbech	447 14 0

Worcester.—Cottages on the St. John's small holdings estate, for the Worcestershire C.C.:—

*— Lockyer, Malvern Link £1,070

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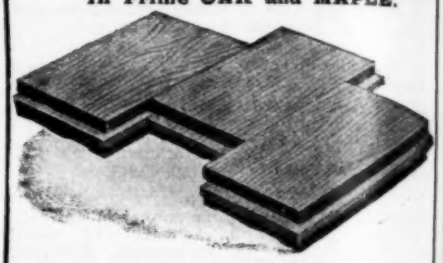
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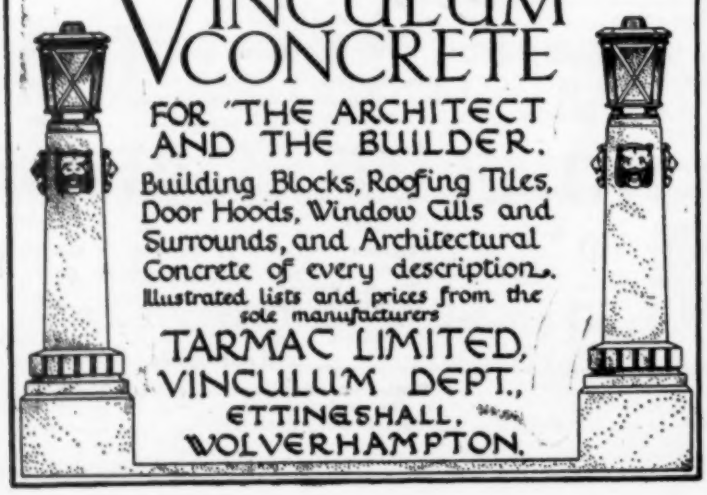

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